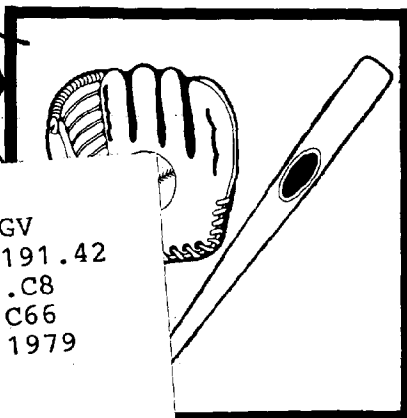
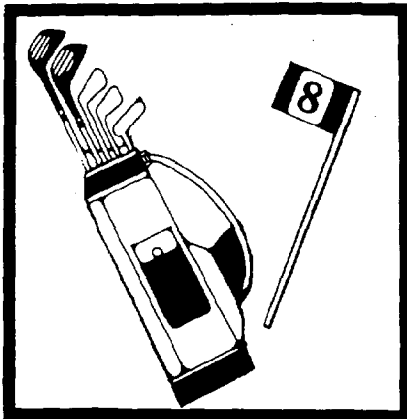
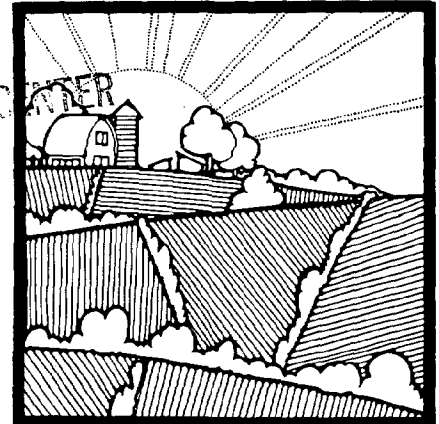


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STATE COMPREHENSIVE OUTDOOR RECREATION PLAN

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CONNECTICUT



Connecticut Department of Environmental Protection

The preparation of this plan was financed in part through a comprehensive planning assistance grant from the United States Department of Interior Heritage, Conservation and Recreation Service under the provisions of the Land and Conservation Fund Act of 1965 [Public Law 88-578].

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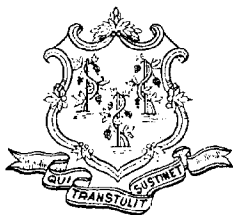
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Connecticut Department of Environmental Protection

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ELLA GRASSO
GOVERNOR



STATE OF CONNECTICUT
EXECUTIVE CHAMBERS
HARTFORD

March 5, 1979

Dear Citizen:

The 1978-1983 Connecticut State Comprehensive Outdoor Recreation Plan (SCORP) presents an evaluation of our state and municipal recreation needs and a program for future action.

During the development of this plan, our citizens and public representatives have made significant contributions to the identification of recreation needs and the formulation of recreation objectives for the future. The SCORP Advisory Board, comprised of private citizens who have donated their time and effort to provide an overview of this document, deserve special recognition for their outstanding efforts in this concern.

The achievement of additional access to our coastal and inland waters continues to be a matter of particular importance in providing quality recreational opportunities for our citizens. The state must also undertake programs which will improve recreation availability for urban residents, elderly and handicapped, many of whom do not have available transportation or cannot travel far from home.

In addition, the state's program of acquiring open space and natural areas for preservation of unique or endangered species of wildlife and flora and securing areas of scenic values is vital to the protection of our state's natural resource heritage.

In consideration of these objectives, I am therefore designating this third edition of Connecticut's Outdoor Recreation Plan as the state's official plan to be considered by the U.S. Department of Interior Heritage Conservation and Recreation Service in determining Connecticut's eligibility for Land and Water Conservation Funds.

With best wishes,

Cordially,

A handwritten signature in black ink that reads "Ella Grasso".

ELLA GRASSO
Governor

PREFACE

The Connecticut State Comprehensive Outdoor Recreation Plan (SCORP) for the 1978-1982 period is a guideline for the allocation of funds from the Federal Land and Water Conservation Act (LWCA) of 1965. Over the next five years, approximately seven million dollars per annum will be available for land acquisition and development of facilities for outdoor recreational activities by the State and municipalities. These LWCA 50% matching funds are supplemented by the State of Connecticut which provides up to 25 percent matching funds for municipal land acquisition and development projects. The 1978 General Assembly has established a \$4 million fund for meeting the State's share of municipal project costs and a \$3 million fund for State acquisition and development.

The 1978-1982 SCORP establishes as general priorities:

1. Increased public access to the state's water resources.
2. Support municipal acquisition and development based upon assessment of greatest needs.
3. Rehabilitation and development of State facilities.
4. Other State land acquisitions.
5. Conservation of natural areas.

The preparation of this document on outdoor recreation has relied upon surveys of Connecticut municipalities, public and private organizations, and the general public. In addition, public participation was solicited through meetings sponsored by Connecticut's Regional Planning Agencies and the Department of Environmental Protection. The SCORP Advisory Board members, representing a broad spectrum of public and private groups interested in Connecticut's outdoor recreational opportunities, have been instrumental in reviewing and contributing to the preparation of the plan.

ACKNOWLEDGEMENTS

This report has been prepared by the Planning and Coordination Unit of the Connecticut Department of Environmental Protection (DEP) with the cooperation and advice of the Connecticut SCORP Advisory Board. Assistance was gratefully received from a number of State, Federal, regional, and local government agencies including the Connecticut Office of Policy and Management and Department of Health, the U.S. Department of the Interior's Heritage Conservation and Recreation Service, the U.S. Department of Health, Education and Welfare, the 15 Connecticut Regional Planning Agencies, and the State's municipal parks and recreation departments and commissions.

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The efforts of the secretarial staff who provided invaluable assistance
in the preparation of this document should especially be noted. Special
thanks to Irene Warchol, Barbara Jurgelas, Linda Medbury, Linda Mrowka,
and Ann Durand.

IN REMEMBRANCE

William S. Burnham, Chief of DEP's Open Space Acquisition Unit, died September 4, 1978 after a long illness.

Bill was a Connecticut Yankee and a natural buyer and seller of land. Born and raised on a dairy farm in Mansfield, he had the countryman's love of the land and a deep feeling for our state's lovely countryside. Thus he was strongly motivated to maintain its green character through land acquisition and preservation, especially in his native hills of eastern Connecticut.

He will be remembered for his dedication to his work with the fruition of those efforts remaining as a lasting tribute.

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REPORT

1

Summary: A Time For Reassessment

SUMMARY: A TIME FOR REASSESSMENT

Previous SCORP's and other state planning studies have well portrayed Connecticut and its expected future. All have agreed that Connecticut has a small but highly varied landbase, which in combination with a temperate, humid climate has given the state a green, well-watered aspect somewhat reminiscent of the ever-changing and visually pleasant landscapes of Western Europe.

Upon this natural pattern has been imposed a dense population in excess of 600 people per square mile. The result of the Industrial Revolution and more than a century of urbanization, this population is concentrated largely in the urban corridor running along Long Island Sound from Greenwich to Greater New Haven and thence northerly through the Central Lowland to the Massachusetts state line. Thus roughly three-fourths of the population is found on one-fourth of the state's land area.

In terms of its socio-economic characteristics, Connecticut's population has some rather striking features. First of all, it has until recently, customarily possessed the highest per capita income of any state in the country and still substantially exceeds the national average. Furthermore, despite a tradition of being a state of skilled, blue collar wage earners, Connecticut in fact is increasingly a white collar state with a high average level of education.

Recent analyses of the state's expected future mandate some revision in earlier projections. No longer is Connecticut's population expected to grow rapidly to over 5,000,000 by the end of the century. Instead, a greatly decreased birth rate and a lower level of immigration due to a likely slower

rate of economic growth should give Connecticut a 2000 A.D. population of roughly 3,775,000. At the same time, the drop in the birth rate should cause a progressive aging in its population, as the Baby Boom wave of the 1950's passes through its demographic cycle and is replaced by far smaller lower age cohorts.

The recreation planner in Connecticut must re-evaluate many of the past assumptions upon which he has based his estimation of demand and of needs requiring corrective action. Most specifically, action plan emphasis must be upon correcting existing and recognized shortcomings rather than on meeting demands from large population increases. Attention must be given to special groups such as the poor, the aged, and the handicapped whose needs hitherto have not received sufficient concern. Additionally, the effect of the energy crisis remains an unanswered question for the recreation planner.

RECREATIONAL NEEDS

Estimation of recreational needs basically must involve a comparison of apparent demand and available supply, although other factors such as the quality of the recreational experience also should be taken into consideration. Connecticut's 1978 SCORP takes this approach in providing the following conclusions on needs by major recreational activity of a regional or statewide character and for recreation at the local level:

SWIMMING

Presently there is a serious deficiency of public swimming opportunity in Connecticut, amounting to approximately 50,000 to 100,000 units of instant capacity. This is particularly serious in inland metropolitan areas such as the Capitol and Central Connecticut Regions. Conversely, communities located on Long Island Sound or in northwestern or northeastern Connecticut with

access to good quality waterbodies generally offer a satisfactory level of opportunity. Nevertheless, there remains a major statewide deficit in swimming supply which is expected to double by the end of the century.

BOATING

Although Connecticut possesses many waterbodies and substantial shoreline on Long Island Sound, motorized boating exhibits several major problems. First of all, a large share of the total supply of opportunity is commercial or privately restricted and therefore does not cater to the general public. Also, a large share of the municipal berths are restricted to resident use only. Thirdly, many major waterbodies currently lack any public access for boating. In addition, inland metropolitan areas such as central and north central Connecticut tend to be "have not" areas, for boating. Extreme competition for available shoreline access is a growing problem in southwestern Connecticut.

Similarly, canoeing and kayaking opportunities in Connecticut are limited by continuing pollution in certain rivers, the generally small size and variable flow of many rivers following the spring freshet, and the effects of water supply diversion and hydropower generation on stream flows.

FISHING

Fishing in Connecticut includes both fresh (cold and warmwater) and marine fisheries. Severe deficiencies of supply occur in the coldwater fishery, where both streams and waterbodies offering this opportunity are very heavily used. Although perhaps partially a natural and non-correctable condition caused by the limited size of the available resource, much of this deficiency is also due to inadequate public access to suitable waters and to competing uses such as provision of domestic water supply. Also, an inadequate supply of public shore and boat launching access is a growing problem.

On the other hand, many warmwater lakes and streams, including the Connecticut River, seem underfished. The recent successes in restoring anadromous fisheries for shad and Atlantic salmon, in particular on the Farmington and Salmon Rivers, hold forth promise for the future. The recreation potential for Atlantic salmon fisheries can only be attained if access over existing dams can be provided and water rights acquired to insure public access.

HUNTING

Although historically oriented to small game, hunting in Connecticut now includes deer hunting on state lands on a permit basis. Major hunting subtypes have included game-bird hunting on a "put-and-take" basis utilizing farmland, waterfowl hunting utilizing inland and coastal wetlands and waterbodies, and forest game hunting. Of these, a particularly serious deficiency exists with game-bird hunting because of its popularity and the limited habitat available in the state. A deficiency exists in waterfowl hunting to a lesser degree. Conversely, the forest game resource seems to be underutilized. In terms of needs, the major problem area relates to the farmland and mixed farm-forest habitat which is being threatened by a number of factors including (a) a rapid decrease in the amount of private property available for lease by the State, (b) land development plus agricultural land abandonment which reduce the extent of habitat, and (c) agricultural practices which reduce food supply and needed cover.

CAMPING

Connecticut presently contains nearly 7,800 campsites, over 80% of which are privately operated. These seem to meet approximately 50% of the demand generated by state residents, implying a very substantial net outflow of campers from Connecticut. Furthermore, the rapid growth in the private

camping industry also implies a large unmet local demand. In the absence of public moneys to substantially expand the existing supply of State campsites, responsibility for meeting much of this demand will necessarily continue to rest with private entrepreneurs.

TRAIL-ORIENTED ACTIVITIES

Summarized comments for each significant trail sport are as follows:

Walking & Hiking - For this recreation activity there are indications of greatly increased participation which include wear-and-tear on trails and land-owner complaints on misuse of the trail and adjacent private property. These complaints are becoming more frequent. As a result, private trail groups maintaining the Connecticut Blue Trail System (largely located on private lands) are experiencing difficulties maintaining a threatened resource in the face of a growing public participation in hiking as well as backpacking.

Horseback Riding - The present Connecticut horse population is estimated to be 64,000. Although largely a private sport utilizing private property, many horse people are increasingly interested in trail riding and therefore are making use of certain State lands where such use is unofficial yet sanctioned. Nevertheless there appears to be an insufficient supply of horse trails to meet the burgeoning demand. Thus there is a need for development of a number of regional trail networks, especially in the southwestern and southeastern parts of the state as well as for development of a State Equine Center as a site for horse shows now necessarily held out-of-state.

Skiing - Because of its relatively mild, marine-influenced winter climate, Connecticut is a marginal state for skiing and therefore is a major net exporter of skiing demand. Furthermore, the private sector traditionally has taken the lead in supplying some in-state opportunity, with the State's role

to provide a land base for cross-country skiing as well as one downhill ski area leased to a private operator in Cornwall.

Snowmobiling - This fast-growing sport faces the same marginal snow conditions affecting cross-country skiing. As a mechanized sport, snowmobiling tends to conflict with other land management goals and therefore is permitted on State lands only in authorized locations. Snowmobilers feel that the currently available supply of state snowmobile trails is inadequate.

Trailbike Riding - As with snowmobiling, trailbike riding as a mechanized sport is allowed by the State only in designated locations. Although three authorized trails now cross State lands, an expansion of trail mileage seems needed in locations where no conflict with other management goals or recreational uses would develop.

Bicycling - This popular activity is now involving up to one-third of Connecticut's residents. Despite this popularity, no bicycle paths physically separated from traffic have been built in this state. Therefore, a major deficiency of opportunity exists, with bicyclers forced to resort to use of public streets which frequently are very hazardous.

OUTDOOR RECREATION AT THE LOCAL LEVEL

Traditionally, local recreation in Connecticut has consisted largely of sports and other playfield/playground activities and of provision of the opportunity to enjoy swimming, tennis, and sometimes golf. As such, it has been facility-development and program-oriented and has tended to cater substantially to children and young adults.

The state's communities fail to meet generally recognized outdoor recreation standards, with the greatest inadequacies tending to be found

in larger urban communities. Survey findings indicate that the five top municipal outdoor recreation problems by order are: (1) a lack of funds to develop facilities, (2) a lack of funds to maintain existing facilities, (3) a lack of neighborhood recreational facilities, (4) a lack of funds for recreational programs, and (5) a lack of funds for open space and outdoor recreational land acquisition. Municipalities also indicated a need for an increase in the following facility types by order or priority: (1) swimming, (2) tennis, (3) ballfields, (4) playgrounds and ice skating, and (5) specialized ballfields (soccer, softball, etc.)

By general category of community, the following conclusions were reached:

(a) Central City - Major problems often include inadequate recreational opportunities in inner city neighborhoods, a need to rehabilitate many older, "worn out" facilities and a less-than-complete use for public purposes of recreational facilities at schools.

(b) Large Suburb-Moderate-Sized City - Often having undergone substantial growth since World War II, many of these communities lack the basic park system possessed by major cities and have a critical need to acquire and develop the areas needed to provide such a basic park system.

(c) Small Community - With a small and scattered population and often a weak tax base, many small towns lack the rudiments of a park system and have traditionally relied on individual or private group-provided recreational opportunity. Thus, their chief need is to provide the basic elements of a recreational program, including a swimming facility, a town-wide park and a playground-field sports area, utilizing available school facilities wherever possible.

SPECIAL ISSUES AND PROBLEMS

Another dimension to Connecticut's SCORP planning is posed by the presence of a number of key issues which must be addressed if outdoor recreation and related conservation opportunities are to be preserved. Chief among these is the issue of public access to the state's waterbodies and rivers and to Long Island Sound. Both because of State law declaring waterbodies to be private property in nature and because of large-scale private permanent as well as seasonal development, the public's access to recreationally-usable water is severely limited and can be expanded only through expensive and often locally opposed land acquisition. This problem has become particularly acute on the state's rivers which, because of the 1967 Clean Water Act, are again becoming increasingly desirable for recreational activities. Despite the expenditure over the last fifteen years of up to \$1,500,000,000 in public tax dollars in Connecticut for this purpose, the Connecticut public will not directly recapture the return from this investment unless a major companion program to buy public access to these cleansed rivers is carried out immediately.

A second problem concerns the fate of privately-owned water utility lands which have formed the bulk of the permanent and semi-permanent open space in certain urbanized portions of southern and southwestern Connecticut, most notably the South Central, Greater Bridgeport, and Valley Regions. Although utilities have proposed to sell off large acreages, to partially offset the cost of new EPA mandates on water filtration, a moratorium has been placed on this action by the General Assembly until June of 1979. Public Act 77-606 of the General Assembly established a land classification system which will regulate any disposal of such lands. Nevertheless, its potential for providing long term protection to the bulk of water utility lands remains

unproven, leaving open the possible need for large scale public acquisition to preserve these areas. Except for some limited acreage, the state and/or local governments will not be able to acquire these lands unless a new source of funds is established.

Still another problem concerns the future of agricultural land in Connecticut, long important in maintaining the quality of the State's landscape, in providing game habitat often available for leasing for public hunting, and in serving as a source of food production. Steadily declining in extent, the remaining half million acres in agricultural ownership have become the subject of great public concern culminating in the 1978 enactment by the General Assembly of a pilot agricultural land preservation program (P.A. 78-232) of \$5,000,000 to acquire development rights on threatened farmland. This program cannot arrest the trend of farm sales for development but will provide a test of the concept of acquisition of development rights.

A further concern regards the need to preserve the natural and cultural heritage of Connecticut, a goal long recognized in public and private preservation efforts in the state and now given impetus in President Carter's proposed national Heritage Program. Concerning natural heritage, primary emphasis must be given to preservation of outstanding and/or unique natural areas and those which represent "critical habitats" needed for the survival of rare or endangered plant and animal species.

Connecticut's rich cultural heritage is well recognized, consisting of literally thousands of sites and structures of historic or architectural value. More significant are the groupings of such sites and structures, especially in the many "traditional villages" which are a symbol of the New England countryside, plus certain cultural landscapes containing a concentration of sites, villages or groupings in a landscape setting such as portions of the

Litchfield Hills, the Connecticut and Farmington River flood plains, and coastal southeastern Connecticut which retain a substantial degree of regional cultural flavor. The Connecticut Historical Commission and the Department of Environmental Protection will be assessing these areas for recreation and preservation requirements with a view to acquisitions necessary to retain their values.

Yet another complex of problems involves the recreational needs of population segments of special concern. Amongst others, this category includes the population of certain cities whose increasing budgetary problems have caused a decrease in real spending for parks and recreation and a growing reliance on temporary Federally-funded (CETA) staff to carry out park and recreation programs. Therefore needed operation and maintenance as well as development and rehabilitation efforts have suffered. Inadequate use of public schools after hours for general public recreational purposes because of tight budgets and/or the lack of communication between education and recreation officials frequently exacerbates the lack of neighborhood recreational facilities in urban areas.

A related problem is seen with the economically deprived sector of the population which lacks the disposable income and often the motor vehicle or mass transit systems needed to participate in certain outdoor recreational activities or to reach many recreational facilities. Although largely concentrated in urban centers, many poor are also found scattered elsewhere throughout the state and typically form a recreationally "have not" element.

Also deserving special consideration are the elderly and the handicapped, whose recreational needs are only recently beginning to be seriously addressed. In the case of senior citizens, poverty and health or physical limitations frequently are factors preventing their participation in outdoor recreation,

as well as their common concentration in urban areas where fear of violence and resulting insecurity also tend to discourage their involvement. The problems of the handicapped are somewhat different. Particularly critical is the need to allow their use of existing recreational facilities not designed to allow ready access by the handicapped, a need which increasingly should be met by the implementation of the U.S. Architectural Barriers Act of 1968 and Section 4 of the Rehabilitation Act of 1973. In addition, there is a growing realization of the need to provide some special facilities for the handicapped and also to integrate their needs into on-going municipal recreational programs.

RECOMMENDED ACTIONS

Connecticut's 1978 SCORP projects a five year action plan totalling \$74,000,000 to be spent by all levels of government in the state. This estimate is based upon receipt of an annual apportionment of \$7,400,000 from the U.S. Land and Water Conservation Fund, with a resulting Federal share of \$37,000,000 over this period to be matched by an equivalent share by state and local government.

The division of this \$74,000,000 Action Plan by sector of investment is necessarily somewhat imprecise, because changing opportunities, problems, and administrative priorities during this five year period are to be expected. Nonetheless, the General Statutes mandate an allocation of up to 30% of the annual Land and Water Fund apportionment for municipal development projects, indicating that \$2,200,000 in Federal moneys annually will be earmarked for this purpose. These funds over the five year period will generate a \$22,000,000 park development and rehabilitation program.

Based upon recent experience, the division of the remaining \$5,200,000 annually in Federal moneys is likely to average roughly 60% for municipal acquisition and 40% for state acquisition and development, although perhaps varying considerably from year to year. Thus during this period roughly \$30,000,000 may be spent on municipal park and open space acquisition, with a minimum of \$20,000,000 invested in state land acquisition and development projects.

With the previously stated needs and issues in mind, the following action recommendations by sector have been developed to guide the use of these outdoor recreation dollars, with the caveat that they should not be used to rule out other desirable types of projects which may be proposed during this five year period.

STATE LAND ACQUISITION PROJECTS

Coastal area purchases for access and development of new facilities.

Acquisition of stream and river corridors to preserve them from development and to realize their recreation potential.

Acquisition of lands on large inland lakes and ponds which can accommodate recreational swimming and related facilities.

Selection, acquisition and expansion of areas for new State parks in proximity to the state's population centers.

Preservation of endangered natural areas and other critical habitats listed on the state's inventory of Natural Areas.

Location of bicycling paths in metropolitan areas which are protected from traffic and which serve other trail purposes.

Fishing and boating access points on bodies of water with recreational utility includes dams, flowage rights and bottom rights required for public access.

Elimination of private inholdings and consolidation of existing State parks and forests.

Acquisition of additional hunting, fishing, and wildlife management sites.

In conjunction with the Connecticut Historical Commission, assist in the acquisition of cultural and historic sites where recreation can be provided.

Acquisition of lands which can integrate and complete the State's Blue Trails and Appalachian Trail systems.

STATE DEVELOPMENT PROJECTS

In addition to the basic and overriding need to rehabilitate and improve existing state recreational facilities and to provide an adequately funded operation and maintenance program to retain this improved level of facility quality, the following detailed recommendations have been made:

Develop additional coastal swimming capacity at Rocky Neck, Hammonasset, and Sherwood Island State Parks.

Begin construction of Silver Sands State Park: the State's remaining presently unrealized major opportunity for new coastal swimming capacity.

Siting of Olympic-size pools on lands near population centers together with day use support facilities.

Complete the acquisition of Gardner Lake properties and begin development of its inland swimming potential.

Develop and implement plans to upgrade, where possible, all existing inland parks for added swimming capacity and improved sanitary facilities.

Develop 100 new natural resource based camp sites per year.

Construct and operate interpretive centers associated with Dinosaur State Park, Fort Griswold, and Putnam Memorial.

Construct additional trails to accommodate the desire for an inter-connected Blue Trails system with ready access to metropolitan areas.

In conjunction with the Connecticut Department of Transportation, complete construction of one or more bikeways physically separated from automotive traffic.

Expand segments of trail bike and snowmobile trails to allow greater travel distances.

Construct a large bore rifle and pistol range capable of meeting Olympic competition standards and several smaller target shooting and sighting in ranges on State lands.

Complete plans for a state equine center and begin construction of support facilities and trails.

Construct new boat launch ramps on Long Island Sound and large waterbodies and upgrade existing facilities.

MUNICIPAL ACQUISITION PROJECTS

Purchase of access to rivers, shorefront areas, ponds, and other waterbodies for preservation and active recreation.

Acquisition of five to ten acre tracts for use as neighborhood parks and active recreation sites.

Selection of large tracts that have a potential for both passive and active recreational uses.

Provide for large land areas that are selected primarily for use as conservation areas but have the capacity to provide selected active and passive opportunities in the future.

Preservation of scenic vistas by purchase or easements, along ridgetops, waterbodies or natural areas.

MUNICIPAL DEVELOPMENT PROJECTS

Sport and Playfields (ballfields, tennis courts, basketball courts, etc.)

Playground Areas

Parking Facilities

Lighting Projects (ballfields and tennis courts)

Support Facilities (bathrooms, storage buildings, dams and control fencing)

Picnic Areas

Access Roads into Park Areas

Trails (hiking, biking, bridle, snowmobile, and nature)

Swimming Areas (natural site development and pools)

Winter Sport Areas (skating and sledding)

Fishing Area Access

Fitness Trails

Marinas

Nature Interpretive Centers

Golf Course Development

RECOMMENDED ADMINISTRATIVE ACTIONS

Key recommendations for administrative action by sector of government include:

Federal Government

1. Provide moneys for needed urban park rehabilitation from a new funding source other than the Land and Water Conservation Fund which already is inadequate to meet the many demands placed upon it.
2. Utilize general federal tax revenues for funding alteration of facilities for use by the handicapped to preserve Land and Water Conservation moneys for existing program needs.

State Government

1. Provide sufficient funding for an adequate operation and maintenance program for existing and any new authorized facilities.
2. Establish a special project fund or emergency fund to allow the acquisition of large-scale projects beyond the fiscal capacity of the regular state action program or the timely acquisition of desirable waterfront properties following natural disasters.
3. Maximize utilization of private land gifts as a source of state and local matching funds.
4. Expand the Title XX Program for transporting inner city youth to State parks.
5. Establish a recreation planning technical assistance program in DEP to assist municipalities.

6. Consider leasing certain State lands for municipal recreation purposes where appropriate and where compatible with DEP management objectives.

7. Encourage phasing of major municipal development projects to avoid disproportionate allocation of limited Federal funds in a given year.

8. Develop project priority evaluation system to assess the relative merits of project proposals.

9. Maintain continuing SCORP planning program including update of the State Natural Areas Inventory.

Municipal Government

1. Establish cooperative programs between recreation and education departments to maximize recreational use of school facilities.

2. Provide sufficient park and recreational funding to permit maintenance of permanent rather than temporary CETA staffing of key program functions.

3. Improve park security to increase facility utilization.

4. Update recreational facilities to allow their use by the elderly and handicapped.

5. Provide for public participation in the recreational planning process.

chapter

2

Land and People

CONNECTICUT - ITS LAND AND PEOPLE

The character of an area will strongly influence its potential for a given use, for outdoor recreation as well as for economic development. One type of influence is exerted by its physical or natural characteristics. Thus a region's geologic history and the resultant landforms will significantly affect the types of recreation which may be feasible. However, even more significant will be the climatic factors of temperature and precipitation which control the vegetation, the water resources, and the wildlife which provide much of the resource base supporting outdoor recreation activities.

Another major influence is posed by the demographic and socio-economic characteristics of an area. For example, in planning for outdoor recreation, it is necessary to know how many people must be provided for and how these people are distributed. Similarly it is important to learn the socio-economic characteristics of the population to be served because outdoor recreation participation rates and activity preferences have long been recognized as being influenced by income, age, and to a certain extent by occupation and level of education. Furthermore, knowledge of expected demographic trends in the subject population is also necessary in projecting expected future recreational investment needs.

PHYSICAL GEOGRAPHY

PHYSIOGRAPHY

Connecticut's area is small, but its 5,000 square miles contain more variety of terrain than many larger states. The State can be divided into four physiographic zones: the Coastal Lowlands, the Central Lowlands, the Western Uplands and the Eastern Uplands (Figure II-1). These zones or regions differ considerably in topographic features (Figure II-2).

Connecticut's southern boundary is formed by 253 miles of irregular shoreline on Long Island Sound. Along this shore stretches a narrow strip of fairly level land geographically designated as the Coastal Lowlands. The coastline is characterized by alternating limited sections of sandy beach, rocky bluffs and saltwater marshes, indented with numerous small coves and inlets.

A north-south strip of lowland bisected by the Connecticut River comprises the Central Lowlands, which extend northerly from Long Island Sound into Massachusetts. Although broken with occasional traprock ridges, most of the land is gently to moderately sloping in character with fertile agricultural soils and fair to good drainage. With few exceptions, most urbanization in Connecticut has occurred within the Coastal and Central Lowlands.

The remaining areas of the state are largely hilly uplands which slope gradually toward the south and east. The Western Uplands are an extension of the Green Mountain Range to the north, with the general elevation in this region ranging from 200 feet in the south to over 2,000 feet in Northwestern Connecticut. Here in Salisbury is found the highest elevation in the state on Mt. Frissell (2,380 feet). This area is generally more rugged than the corresponding Eastern Uplands although in its southern part the

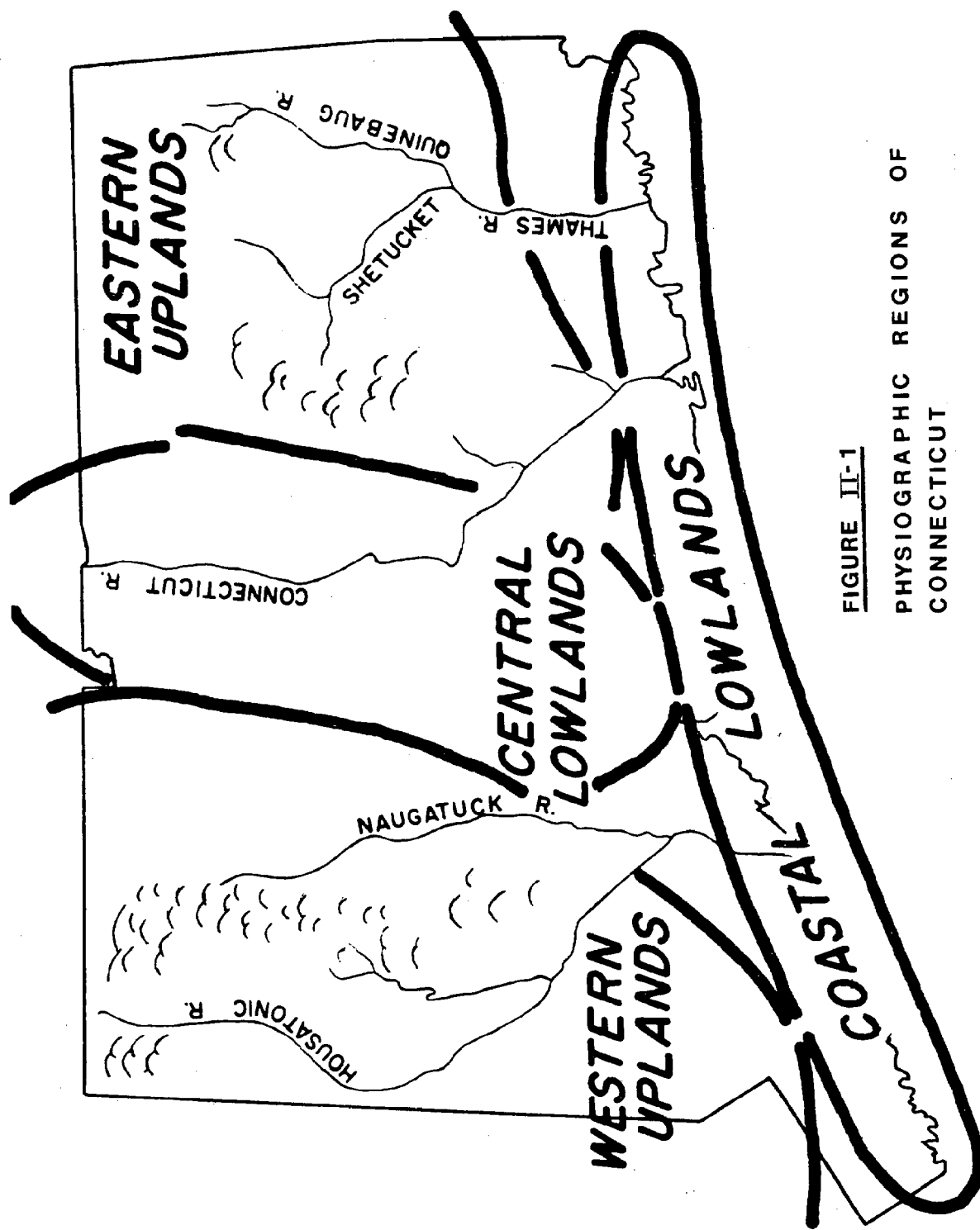
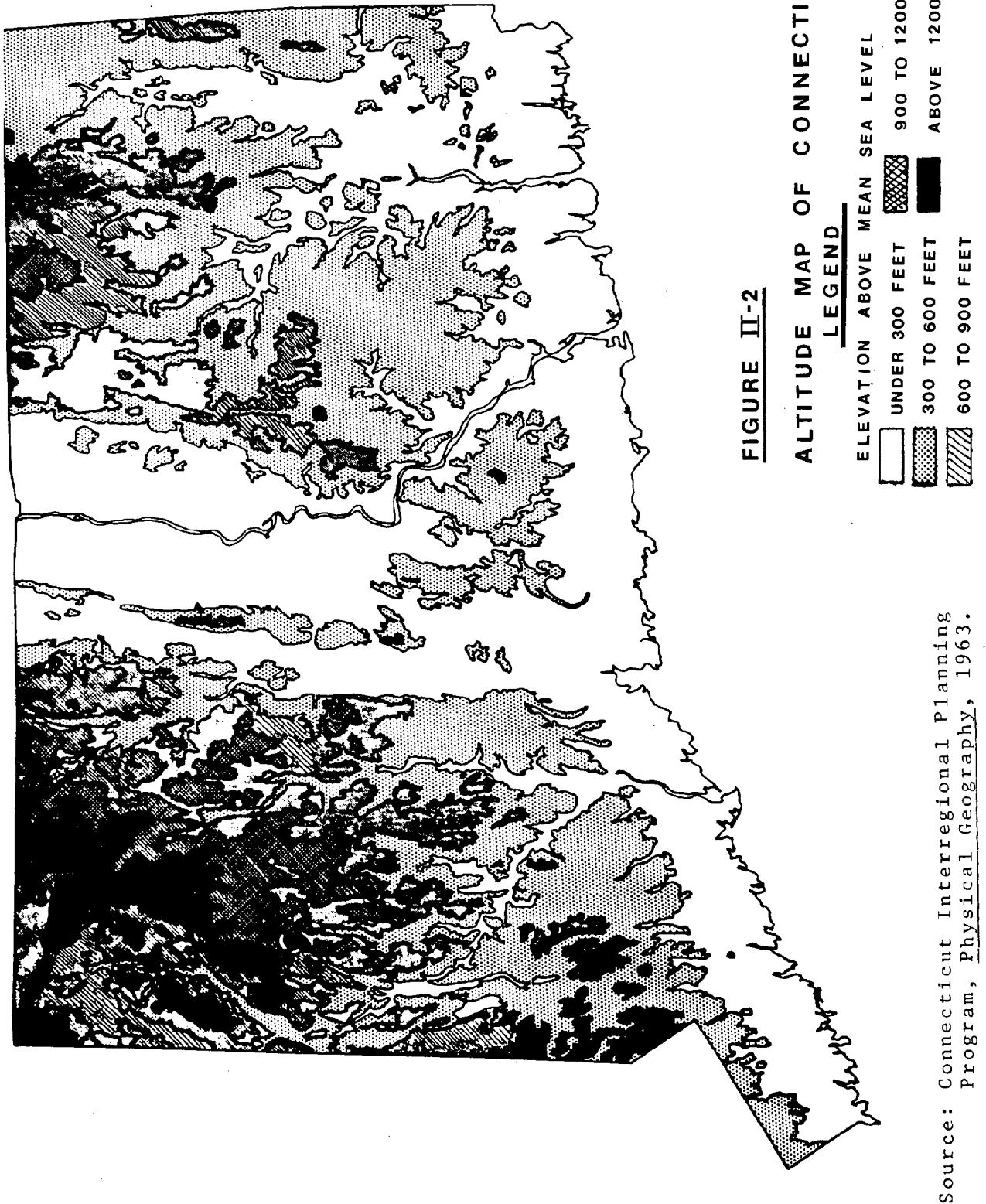


FIGURE II-1

**PHYSIOGRAPHIC REGIONS OF
CONNECTICUT**

Source: Connecticut Interregional Planning Program,
Physical Geography, 1963.



hills are gentle.

The Eastern Uplands are continuous with the New England Highlands in Massachusetts. Elevations here range from 500 feet to 1,100 feet near the Massachusetts border, to about 200 to 500 feet in the Southeast. While both Eastern and Western Uplands have scattered pockets of good croplands, especially on the clay ridges and on drumlins, they are largely unsuitable for extensive agriculture and are primarily in forest or pasture.

CLIMATE

Connecticut's coastal location has a moderating effect on the state's climate. Winters are moderate and summers warm. The mean annual temperature for coastal Connecticut is 50 degrees and 49 degrees Fahrenheit for the Central Lowlands. On the other hand, the Eastern and Western Uplands have mean annual temperatures of 47 degrees and 46 degrees, respectively. In January, the coldest month, the average statewide maximum temperature is 36 degrees and the average minimum is 18 degrees. In the warmest month, July, the average maximum is 83 degrees and the average minimum is 60 degrees (Figure II-3).

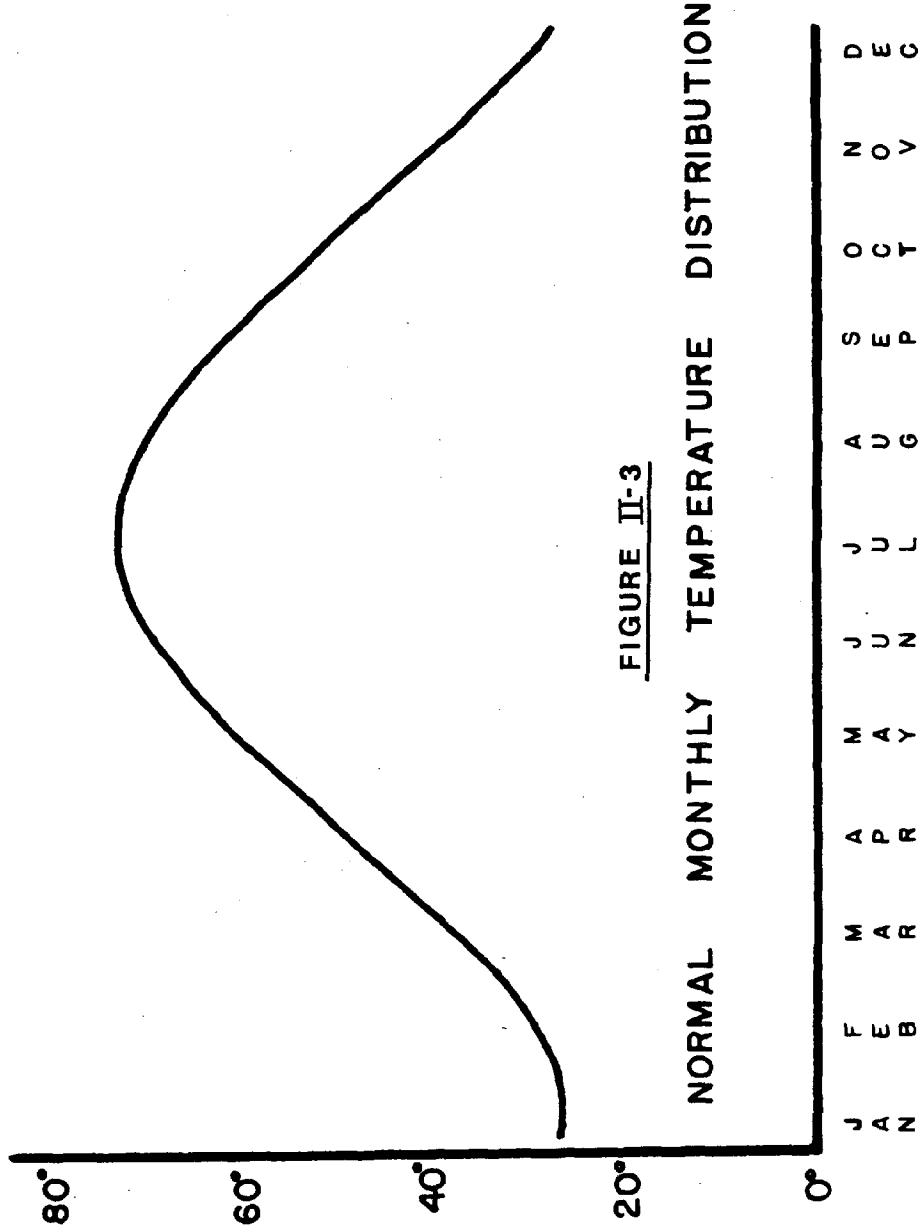
The winters in Connecticut are not as long nor as severe as they are in the northern New England states. In the fall, freezing temperatures usually begin about the middle of November, and end by the last week in March along the coast and early in April in the highlands. Sub-zero temperatures occur in practically every part of the State, but readings of -10 degrees or lower are unusual. Extreme heat in summer is usually rare. The average number of days per year with maximum temperatures of 90 degrees or above is eight in Hartford and four in New Haven. Summer temperatures on the southern coast of the State are modified by cooling sea breezes.

Precipitation is generous. The average statewide total is 45 inches with a range of 42 to 52 inches. Precipitation is distributed evenly throughout the year, ranging from three to four inches per month (Figure II-4). Therefore, droughts are infrequent and usually short in duration. Flooding occurs in both spring and fall, and is a frequent problem in the state's river valleys.

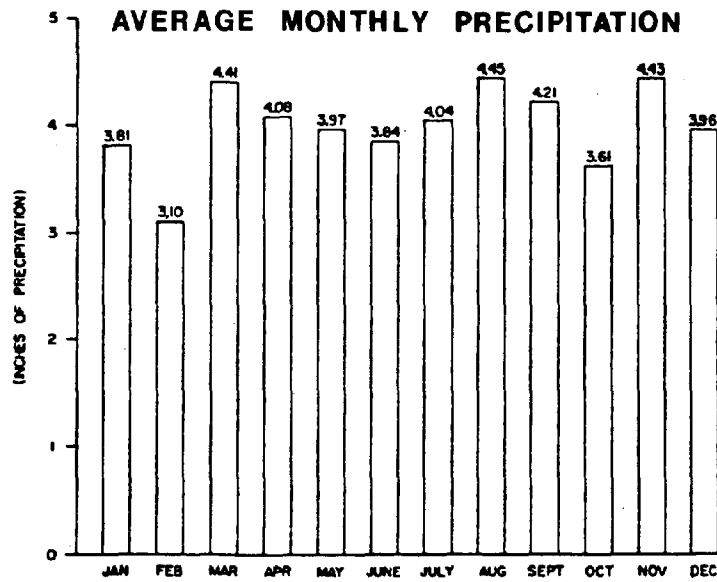
Snowfall varies throughout the state, lighter along the coast and heavier in the northwest (Figure II-5). Near the Sound the average snowfall is less than 35 inches while the northwestern portion of the State receives over 100 inches. Long-term records indicate that there is considerable variation in seasonal amounts of snowfall; in one location more than 130 inches fell in one year where only 37 inches had fallen several years previously. Generally, though, the northwest region receives enough snow to encourage winter sports with the ground being covered an average of 90 days a season.

Winter

Although Connecticut winters are generally cold enough to allow winter sports, occasionally mild winters offer less than ideal conditions for such activities. The Western Uplands, with its heavier snowfall, is best able to support winter sports activities such as alpine and cross-country skiing, snowmobiling, sledding, hockey, and ice skating. Elsewhere in Connecticut, conditions favoring such activities may be available for limited periods in the average winter, providing only marginal winter outdoor recreation opportunities.



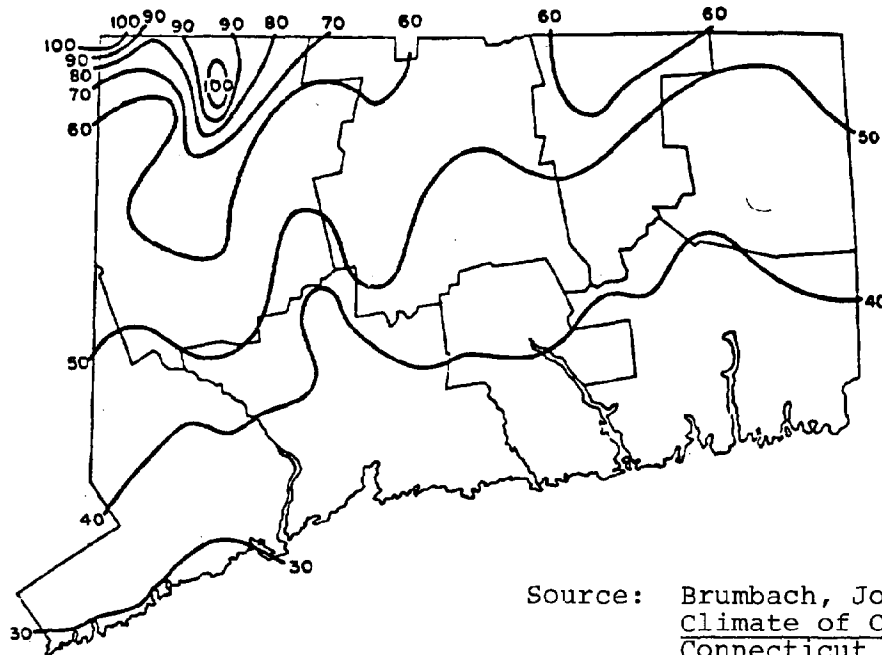
Source: U.S. Department of Commerce
Weather Bureau, Climates of
the States: Connecticut

FIGURE II-4

Source: Water, Connecticut Inter-regional Planning Program, 1962.

FIGURE II-5

MEAN SEASONAL SNOWFALL (Inches)



Source: Brumbach, Joseph J., The Climate of Connecticut, Connecticut Geological and Natural History Survey, 1965.

Spring

Spring, although experiencing substantial variability of weather from year to year, is of approximately two months duration and provides aesthetic appeal with blooming dogwood and mountain laurel scattered throughout the state's extensively forested land. It is a time for fishing, pleasure walking, and sightseeing. Other major activities engaged in are bicycling, jogging, nature study, hiking, canoeing, kayaking, softball, badminton, volleyball, track, tennis, golf, horseback riding, picnicking, soccer, and kite flying.

Summer

Summer lasts three months and is the prime period of the year for water-oriented activities such as swimming, sailing and motor boating. People flock to the State forests and parks for picnicking and camping. Other outdoor recreational activities enjoyed are day camps, nature study, hiking, rock and mountain climbing, golf, fishing, motor biking, bicycling, sightseeing and, of course, walking for pleasure.

Fall

During the 2-1/2 months of fall, thousands of people are attracted to Connecticut's rolling countryside by the spectacle of colorful autumn leaves. Activities enjoyed during this season are walking and driving for pleasure, sightseeing, nature study, hunting, trapping, bicycling, football, soccer, golf and fishing.

In sum, the variations in Connecticut's physiography and climate offer its residents opportunities for a wide variety of recreational activities in all seasons of the year.

WATER RESOURCES

Connecticut has been blessed with ample inland and coastal water resources. These include numerous lakes and ponds, several major river systems, freshwater and saltwater marshes, and a shoreline on the Long Island Sound.

The state contains over 6000 lakes and ponds. Most are quite small and although well-suited for fishing, are less suitable for high speed boating and water-skiing. The largest inland waterbodies are Lake Candlewood (5,420 acres), Barkhamsted Reservoir (2,330 acres), Lake Lillinonah (1,900 acres), Lake Gaillard (1,009 acres), and Lake Zoar (975 acres). Ten other lakes are between 500 to 1,000 acres, 14 more between 300 and 500 acres, and 81 between 100 and 300 acres in size. These waterbodies are fairly evenly distributed, with the exception of the northern Central Lowlands (Figure II-6).

The major river systems include the Connecticut River in the Central Lowlands, the Housatonic and the Naugatuck Rivers in the Western Uplands, and the Thames River in the Eastern Uplands (Figure II-6). Altogether, Connecticut has 8,400 miles of rivers and streams. There are also 118,267 acres of freshwater marshes and in excess of 16,000 acres of tidal marshes in the state.¹

The state's inland water resources have been greatly affected by pollution and development. Deteriorating water quality due to municipal and industrial pollution has greatly impacted opportunities for inland water-based recreation. In the past 15 years, a major commitment has been made to clean Connecticut's waterways. Half of the state's rivers and streams

¹State of Connecticut, Department of Environmental Protection Water Resources Unit. Personal Communication.

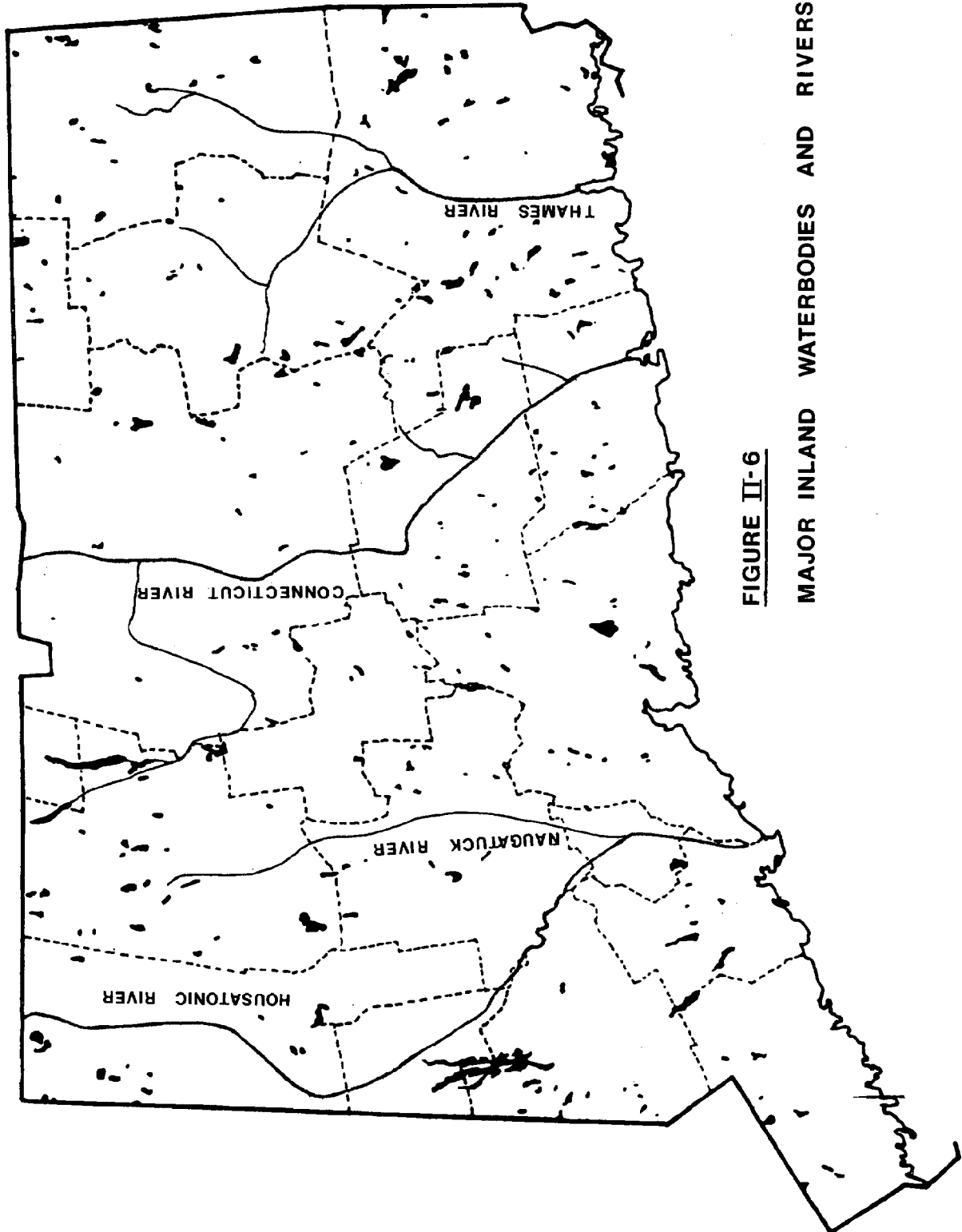


FIGURE II-6

MAJOR INLAND WATERBODIES AND RIVERS

are now fishable and swimmable. With regard to freshwater and tidal marshes, regulation by towns and the State have reduced the loss to development of those wetlands with significant wildlife habitat and fishery values. Such areas are important not only as wildlife and fish rearing and refuge areas, but as places to pursue wildlife and fishery related recreation activities.

In addition to its other water resources, Connecticut's coastal shore provides access to the Long Island Sound. The state's coast is a mixture of rocky shore, small coves and bays, saltwater marshes, and sandy beaches. There are 458 miles of coastal frontage on the Sound, of which 84.5 miles are sandy beach, as defined by Connecticut Coastal Area Management Program. This figure includes riverine frontage in the 36 coastal towns.

DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS

This section contains an analysis of the demographic and socio-economic characteristics of Connecticut, present and future. This information provides a basis for assessing the magnitude of future recreation needs. The second part is a description of the socio-economic characteristics of the population: age structure, income, education, and occupation. These characteristics serve as indicators to the kinds of recreation activities that will be sought.

DEMOGRAPHIC CHARACTERISTICS

Past Population Growth

Since the first census in 1790, the population of Connecticut has grown, with occasional variation, exponentially. The first census recorded nearly a quarter of a million residents; the most recent, in 1970, counted over three million--nearly thirteen times as many (See Figure II-7). The decennial rate of growth remained low (about five percent) until the 1840's and then rose sharply as a period of immigration began. The early immigrants were Europeans who, for the most part, settled in the cities to work in the state's newly developing industrial economy. In the twentieth century, and especially in the period since World War II, the new immigrants have included blacks leaving the South seeking better job opportunities, Hispanics, and a large number of professionals and executives who work in the New York City area but reside in Connecticut. Most recently, attraction of corporate headquarters, foreign businesses and commercial enterprises has created substantial growth in the Danbury-Brookfield-Bethel-Newtown area.

The rate of population growth (See Figure II-7) dropped during the 1920's, and plunged still further during the Depression, but recovered after World

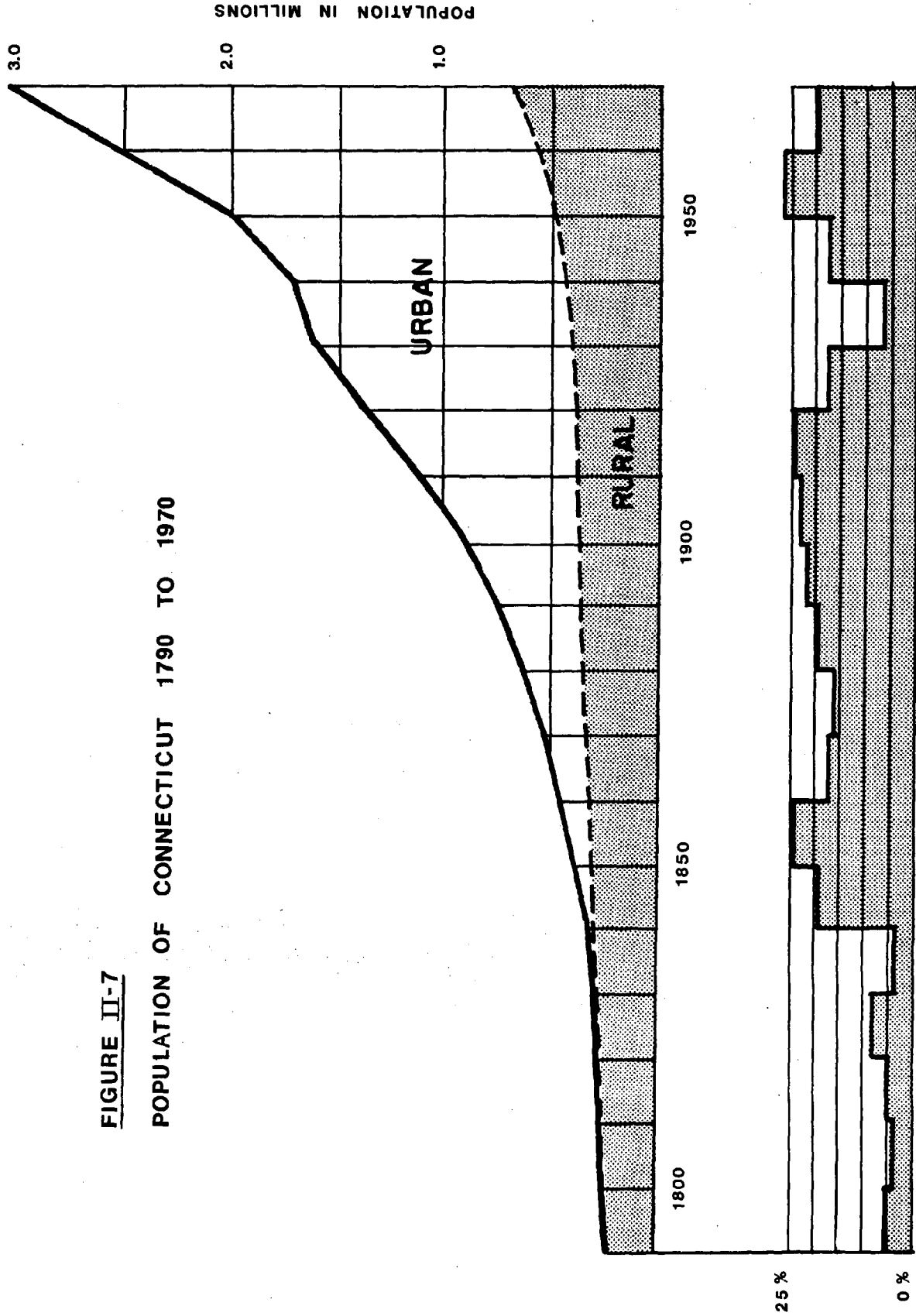


FIGURE II-7

POPULATION OF CONNECTICUT 1790 TO 1970

Source: 1970 U.S. Census

RATE OF GROWTH

War II and soared to its highest point of 26.3 percent from 1950 to 1960. During the last decade, the decennial growth rate dropped to 19.6 percent, a change which, in part, reflects the sharp decline in the birth rate since the early 1960's. As a result of this past population growth, Connecticut is now the fourth most densely populated state in the nation. Statewide population density averages 641 inhabitants per square mile.

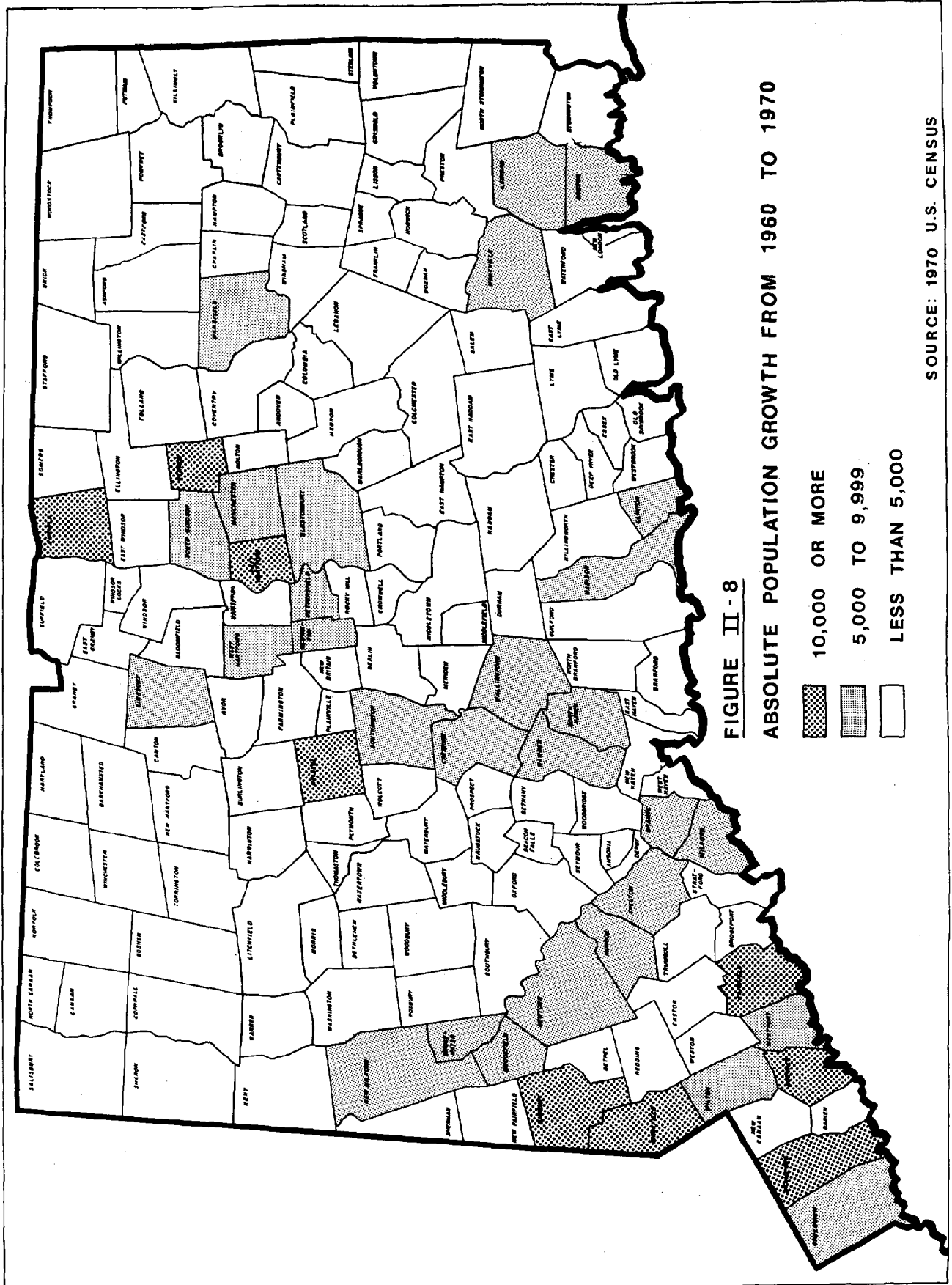
Population Distribution

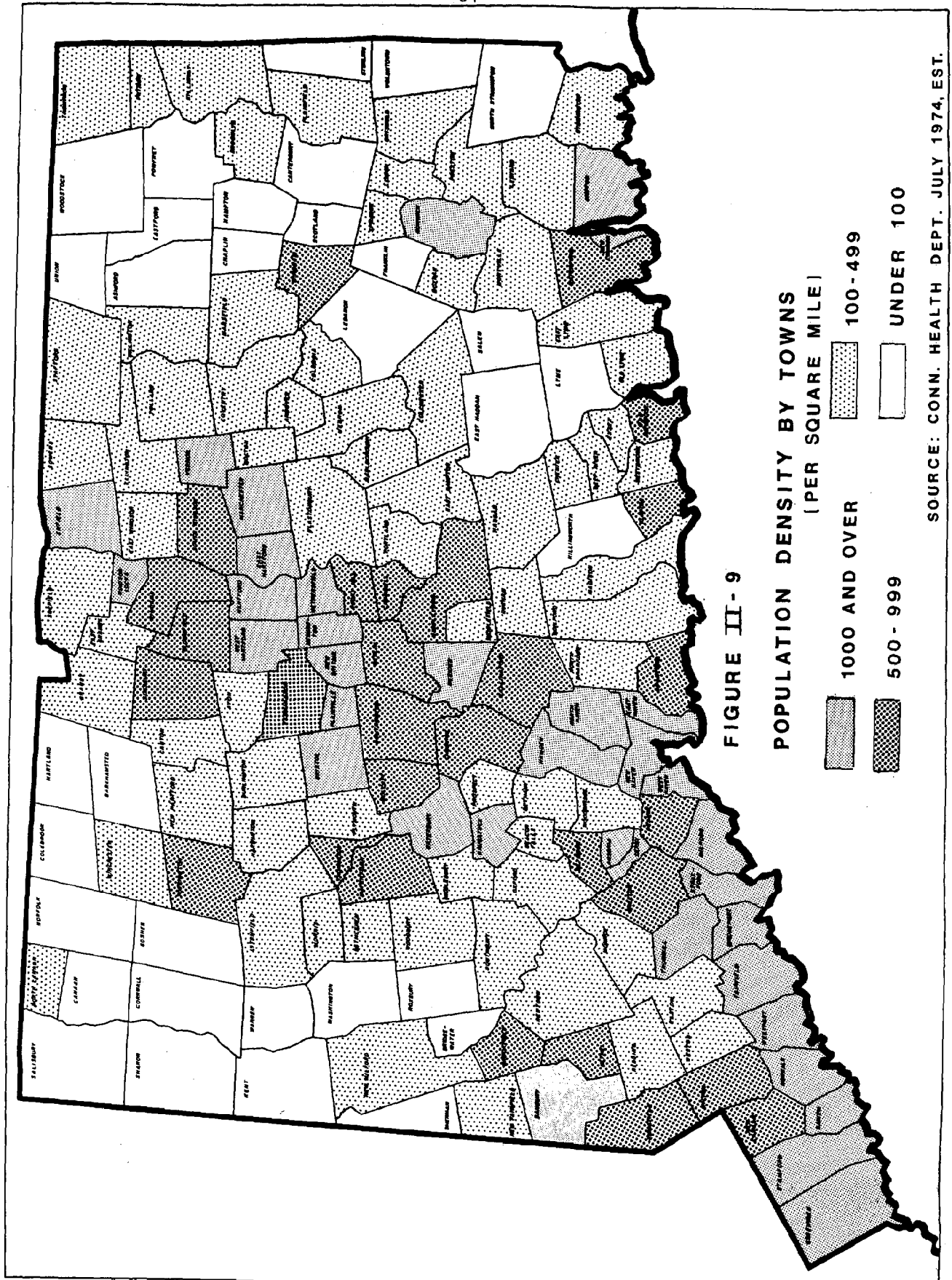
In 1800, the population of Connecticut, which numbered 251,000, was spread sparsely but evenly over the state's entire land area. At that time nearly all of the state's population could be regarded as rural. The state's largest cities, Hartford and New Haven, had only a little more than 5,000 people each. In the mid-nineteenth century, the state began a transition from an agricultural to an industrial economy, thus beginning a period of rapid urbanization. By 1900, more than half of the state's population could be classified as urban. The population distribution in 1900 was sharply defined with high-density urban settlements and the remainder of the state's population at a very low density. By 1920, the population of the central cities (Hartford, Bridgeport and New Haven) began to peak and level off, as buildable land within these communities was exhausted; and thereafter growth extended into the adjacent towns. In 1940 settlement patterns still retained a clear-cut distinction between high and low density areas. After the Second World War, however, the central cities ceased to grow; some actually began a population decline: Hartford, from 177,397 in 1950 to 158,017 in 1970; New Haven from 164,443 in 1950 to 137,707 in 1970. Aided in part by the automobile and improved highway systems, a new process of suburbanization began as families and businesses in search of more generous space spilled

out of the cities and settled in lower density on the urban fringe. The old centers lost their cohesiveness as the population began to disperse to the outlying towns. By 1970, this new pattern of low density growth extended between old urban centers from Stamford in the southwest, to Springfield, Massachusetts. This process of urbanization followed by suburbanization has occurred all along the Atlantic Seaboard from Boston to Washington, creating an almost uninterrupted chain of development of which Connecticut is a part.

Given improved accessibility, rural towns which were once fairly remote are now regarded as choice residential communities by commuting city workers. Figure II-8 shows those towns which have experienced the greatest absolute growth during the decade from 1960 to 1970. Southwestern Connecticut has grown most rapidly due to the attraction of corporate headquarters, foreign businesses and commercial enterprises. The Connecticut Department of Commerce reports that 26 new industrial and corporate employers have been located in the Danbury-Brookfield-Bethel-Newtown area. Their combined jobs impact is more than 7,900 jobs (4,800 direct employment and 2,900 supporting services). Substantial growth has also occurred in the towns along the Housatonic Valley and in the outer suburbs of New Haven, Bridgeport, Hartford, New Britain, the New London-Groton-Norwich area and in Connecticut communities near Springfield, Massachusetts. It is in these areas where the increase in demand for local municipal recreational opportunities will be most severe.

Figure II-9 illustrates the present distribution of Connecticut's population, its urban corridor, and the density of the State's inhabitants. About 74 percent of the population is now contained in 50 of its 169 towns





on 26 percent of the total land area. The density of these 50 towns is 1,821 persons per square mile, while the remaining 119 towns have an average density of 229 persons per square mile.

Population by Planning Region

The population of Connecticut's 15 planning regions is shown in Figure II-10. Here also can be seen the urban corridor stretching from the New York City area to Springfield, Massachusetts.

The Capitol, South Central, South Western, and Greater Bridgeport Regions are the most populated (Table II-1). The Housatonic Valley Region has experienced the greatest percentage population increase from 1960 to 1970 and since 1970. Due to the continued tremendous population growth being experienced in the Housatonic Valley Region, demand for outdoor recreation is also greatly increasing.

TABLE II-1
POPULATION OF PLANNING REGIONS^a

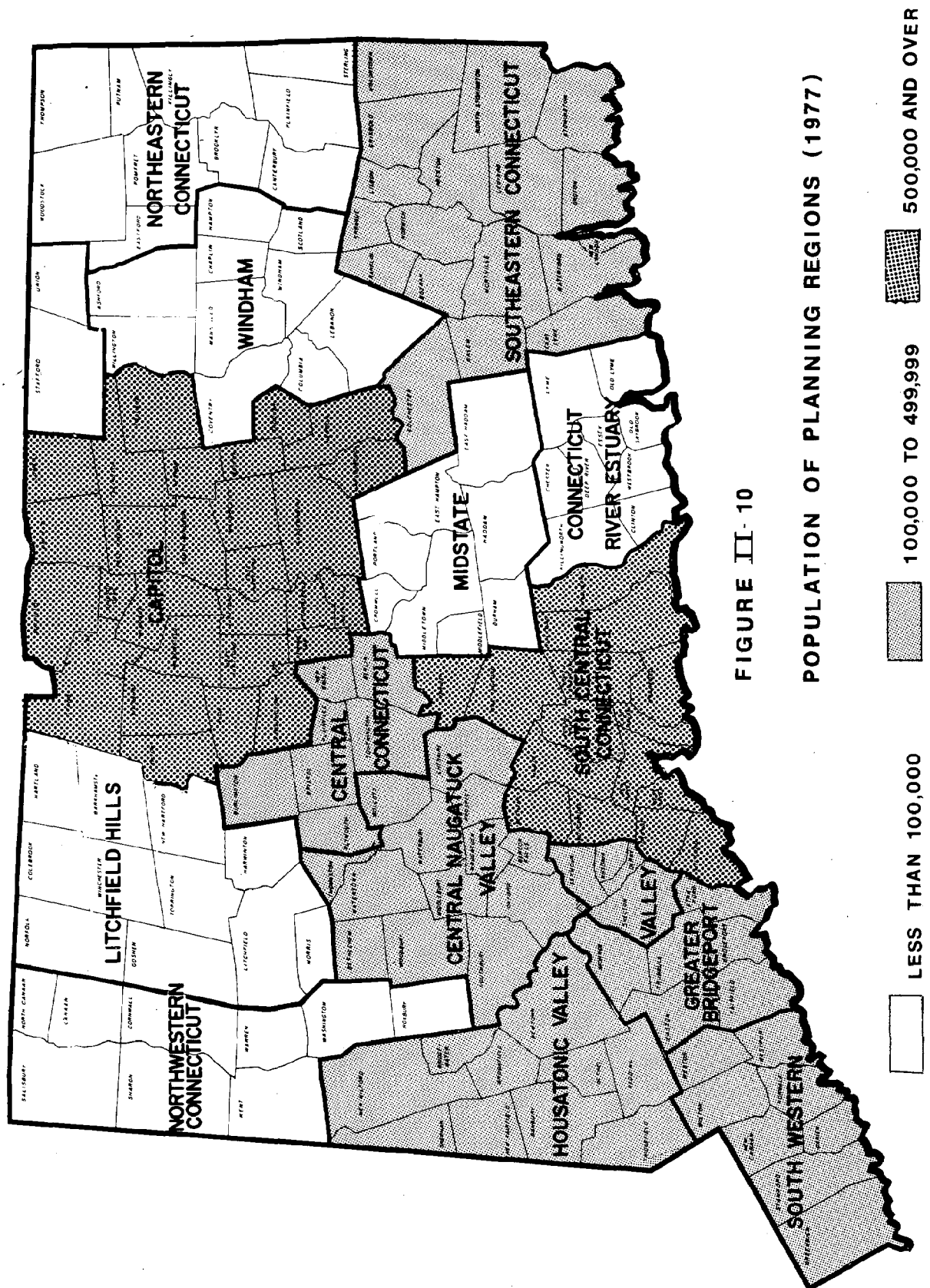
<u>Region</u>	<u>1960^b</u>	<u>1970^b</u>	<u>1977^c</u>	<u>% Increase 1960-1970</u>	<u>% Increase 1970-1977</u>
Capitol	546,545	669,900	684,272	23	2
Central Connecticut	186,667	215,200	217,700	15	1
Central Naugatuck	195,512	223,200	243,900	14	9
Connecticut River Estuary	26,733	43,000	48,400	61	12
Greater Bridgeport	278,131	311,100	312,497	12	0.5
Housatonic Valley	87,280	136,500	158,408	56	16
Litchfield Hills	60,688	68,200	71,715	12	5
Mid-State	66,383	78,400	83,711	18	7
Northeastern	47,436	59,000	65,430	24	11
Northwestern	15,928	18,400	19,980	16	9
South Central	448,835	507,800	517,310	13	2
South Eastern	179,060	220,400	233,698	23	6
South Western	279,204	333,900	349,458	20	5
Valley	60,241	73,700	76,710	22	4
Windham	48,732	64,400	67,578	32	5
Non-Defined ^d	<u>7,859</u>	<u>9,100</u>	<u>10,650</u>	<u>16</u>	<u>17</u>
TOTAL	2,535,234	3,032,200	3,161,417	20	4

^aIncludes institutional populations.

^bSource: U.S. Census of Population, 1960 and 1970.

^cSource: Connecticut Department of Health, 1977 estimates.

^dIncludes towns of Stafford and Union.



Source: Connecticut Department of Health, 1977 estimates.

SOCIO-ECONOMIC CHARACTERISTICS

Age Structure

Empirical studies have shown that the variable of age is significantly related to the degree of participation in certain types of outdoor recreation. The very young and the very old are more physically restricted in types and amounts of recreational activity. Persons over sixty participate in fewer outdoor recreational activities and prefer recreational settings which require a minimum of exertion and agility. They favor high-development recreational sites and engage mainly in passive urban activities, especially walking for pleasure and attending local parks. They seldom engage in winter outdoor recreational activities. The young have higher rates of participation in a wider variety of outdoor activities. They engage in more active outdoor activities requiring high physical exertion, as in hiking, swimming, canoeing, bicycling, outdoor games and sports, and horseback riding. Thus, each age group has different recreational needs and must be provided with different recreational opportunities.

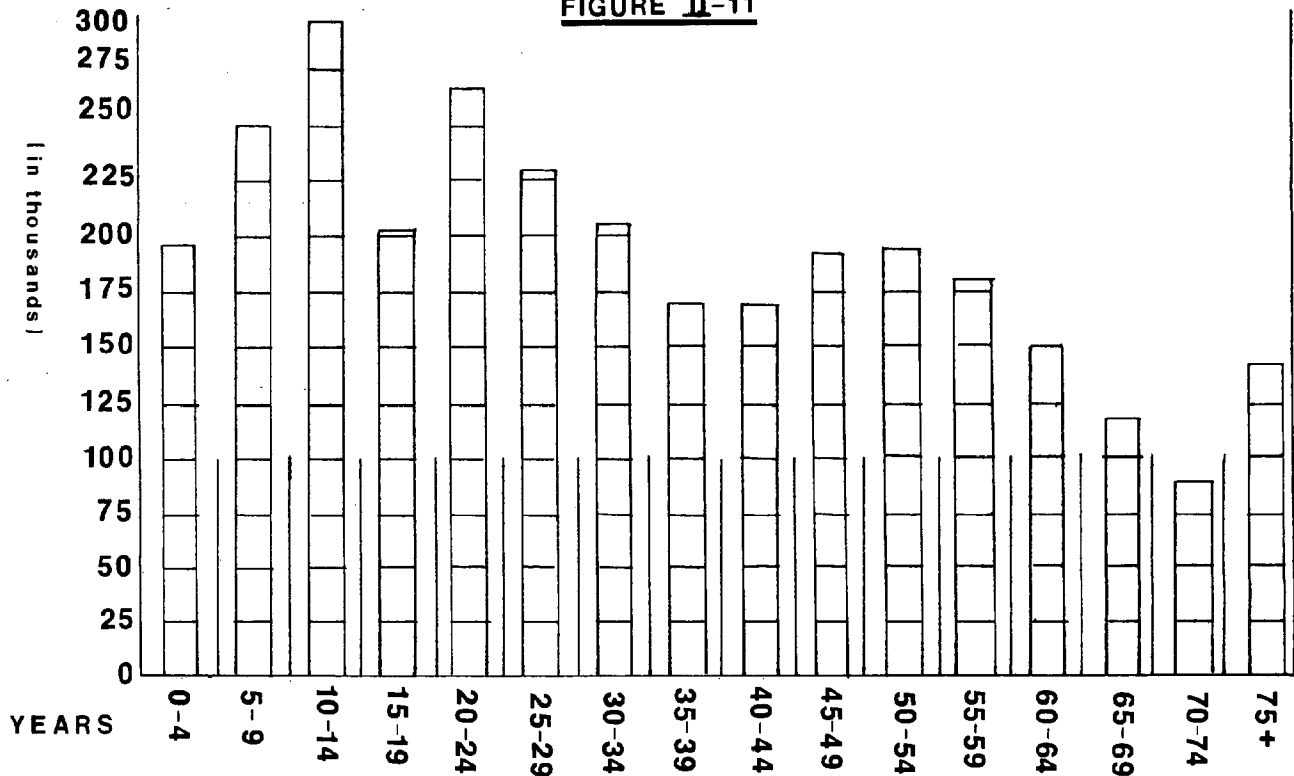
Estimates for 1975 show the following age distribution of the population of Connecticut:¹

<u>Age Group</u>	<u>Age</u>	<u>Percent</u>
Pre-School children	0-4	6.3
Older children and adolescents	5-19	27.0
Young adults	20-29	15.8
Adults	30-64	40.0
Elderly adults	65 and older	10.9

¹Department of Planning and Energy Policy, State of Connecticut
Connecticut Population Projection by Age and Sex 1975-2000. 1975.

POPULATION BY AGE: 1975

FIGURE II-11



Income, Education and Occupation

Empirical research has shown that differences in recreational styles and rates of participation in different activities are also related to the variables of family income, education, and occupation.

Family income is indicative of one's participation in outdoor recreation activities because it determines the amount of personal resources one can allocate for recreation. A person with an income greater than the United States median per capita income participates more frequently and in more diverse outdoor recreational activities. Financially he is able to travel

more often and longer distances. He is able to engage in those outdoor recreational activities which are relatively expensive, such as motor boating and water-skiing, and, in most winter sports, he is overrepresented. His income allows him to follow certain lines of "taste" in recreation.

A person with a more limited income participates less often and in a narrower range of outdoor activities. He travels less often and travels shorter distances. He prefers more developed recreational settings and engages to a lesser degree in hiking, nature study and swimming than can his more comfortable counterpart. However, both levels of income participate in walking for pleasure, hunting, fishing and attending local parks. A permanent change in the general level of family income often results in different choices of recreational activities.

Figure II-12 gives the distribution of family income for the state in 1969. The median family income in Connecticut is \$11,811 which is higher than the national average and, more than 30 percent of Connecticut's families have incomes of over \$15,000.¹

The statewide distribution of family income does not, of course, apply uniformly to all towns; considerable variation occurs. Figure II-13 indicates those towns where the percentage of families below the poverty level exceeds the statewide average. These are usually the central cities and also the rural towns in the northeastern corner of the state. Figure II-14 identifies those towns with a high percentage of families earning \$15,000 or more annually. These towns are in the South Western Planning Region and in the suburban areas around Hartford, New Haven, and Springfield, Massachusetts.

¹U.S. Department of Commerce, Bureau of Census. 1970 U.S. Census Data.

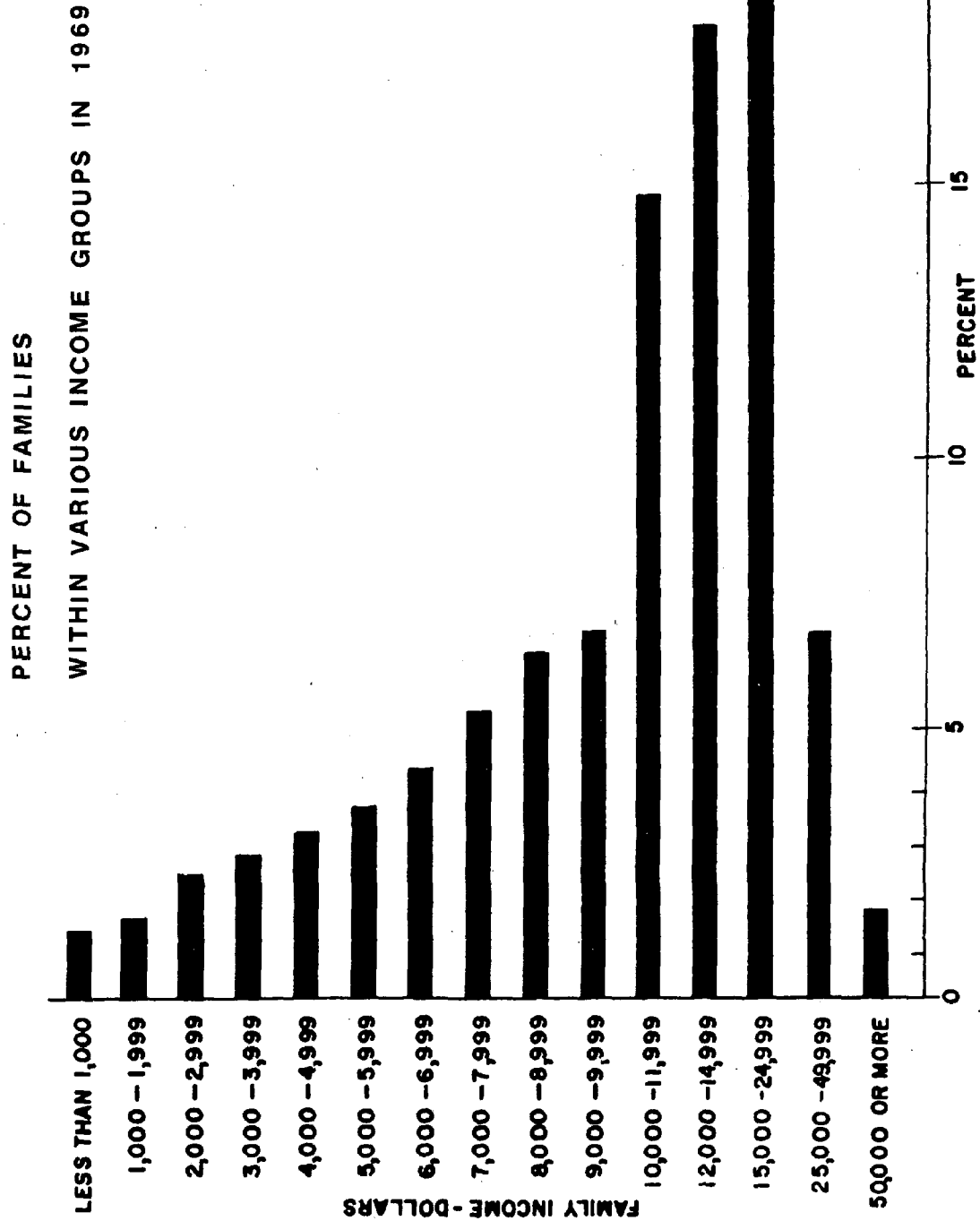
These community income differentials can influence the availability of recreational services provided by local governments.

National and regional studies indicate that education also affects the types of recreational activity chosen and frequency of participation. The demand for recreational services can vary between communities and regions reflecting education as well as income and occupational characteristics.

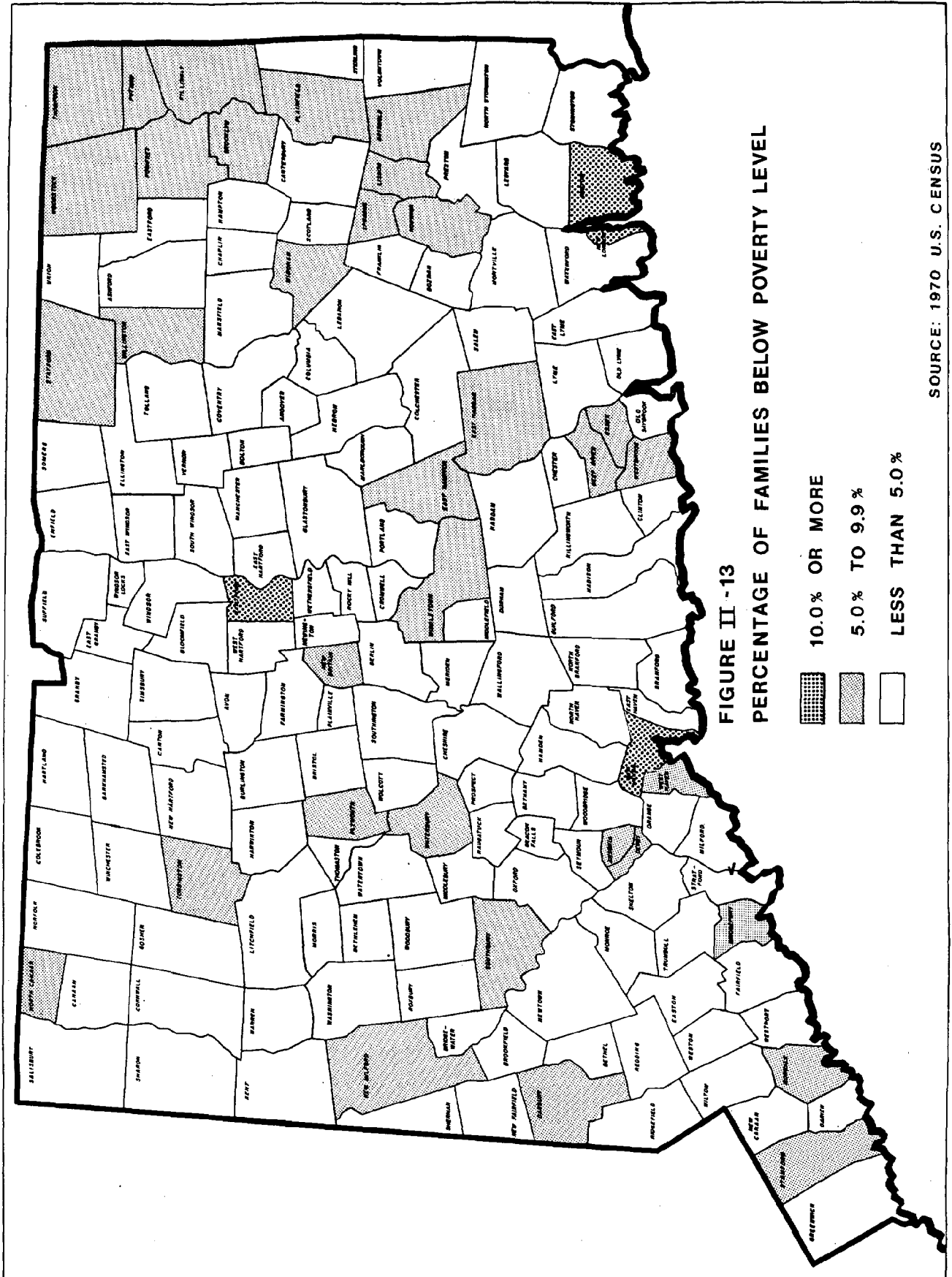
Figure II-15 shows the educational attainment of males and females 25 years and older in Connecticut. There are significant geographic differences in the educational backgrounds of the state's citizens. Figure II-16 shows those towns where the number of college-educated persons is more than 20 percent of the population age 25 and older. These towns are primarily in the South Western Planning Region and some suburbs surrounding the cities of Bridgeport, New Haven, and Hartford, as well as the town of Mansfield in which the University of Connecticut is located.

It can be anticipated that only generalized change in the statewide level of educational attainment will be followed by associated changes in the types of recreational activities sought.

While the choice of recreational activities is highly personal, some patterns of participation are evident based upon broad classifications of the population. Occupation, education, and income are socio-economic variables which are significantly correlated with each other. Occupation, which is influenced by education and has a direct impact upon earnings, influences recreational choices. Those in the professional, technical and other high earnings occupations have the highest frequency of participation rates in a variety of outdoor recreational activities. They often visit recreational settings which are more than 20 miles from home, and constitute a signifi-

FIGURE II-12

Source: 1970 U.S. Census.



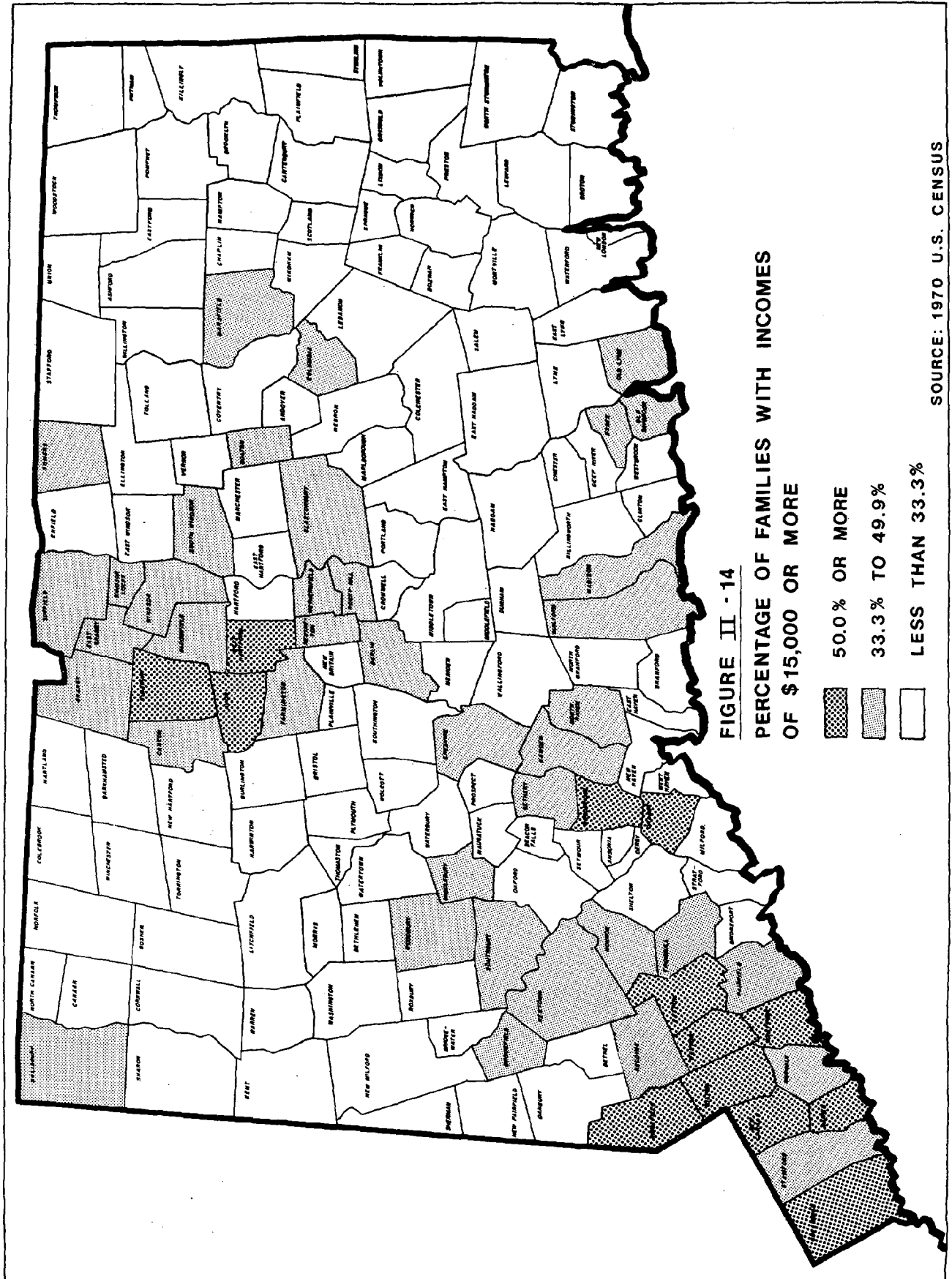
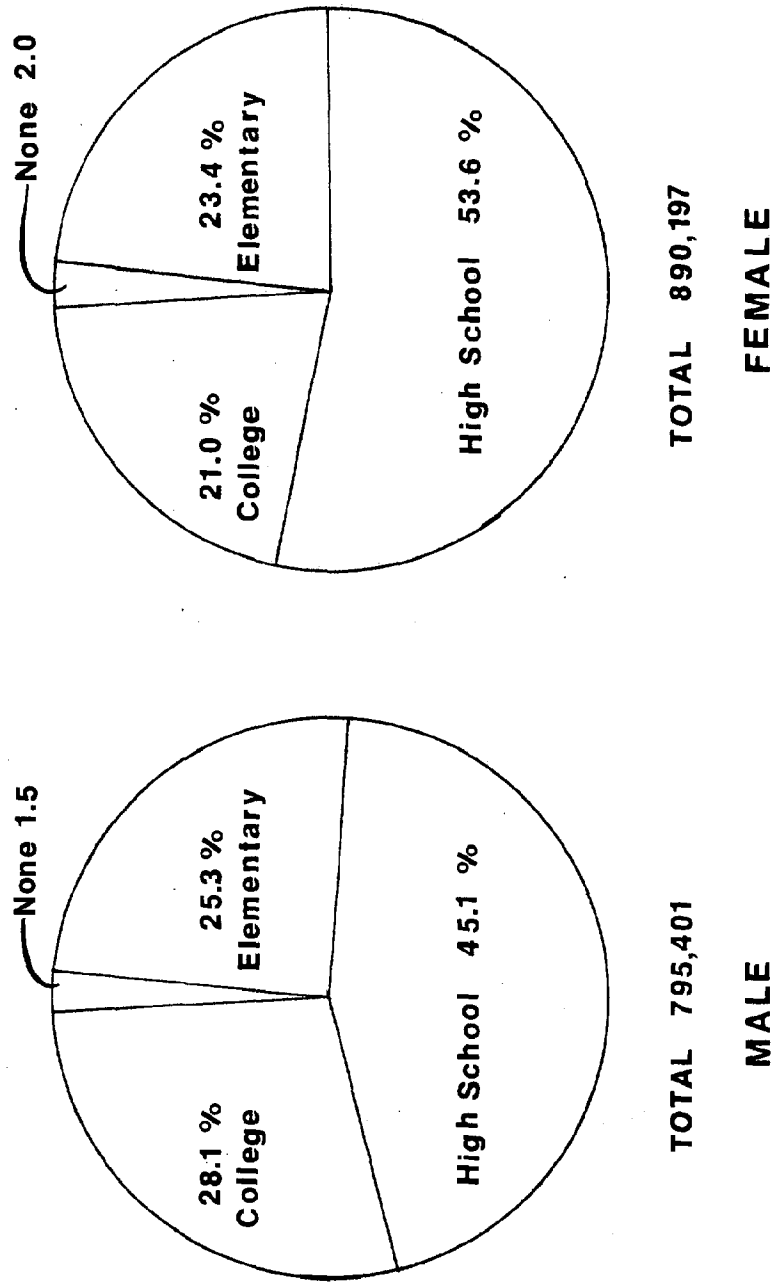
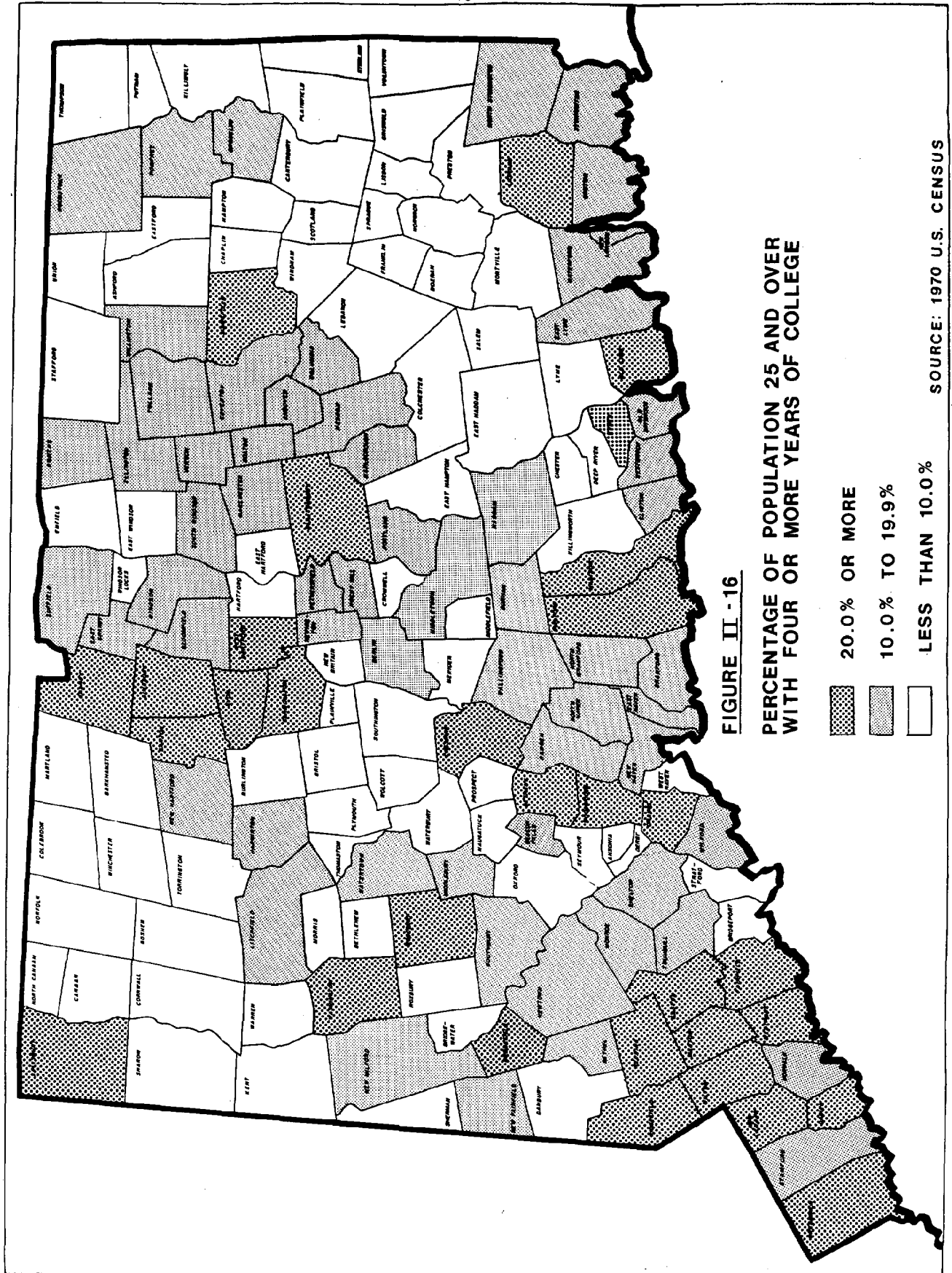


FIGURE II-15**PERSONS 25 YEARS AND OLDER BY YEARS OF EDUCATION***

* One or more years completed in category shown.

(Source: 70 Census: An Abstract, Department of Finance and Control, 1972, p. 13)



cant segment of the recreationists pursuing hiking, natural areas studies, mountain climbing, as well as other activities.

Those engaged in the service industries, generally categorized as "white collar" workers and whose earnings tend to be lower than the average of professional and technical groups, tend to utilize more developed recreational settings closer to their place of residence and tend to participate in recreational activities available in an urban setting.

Manufacturing and trades workers have the highest representation in urban recreation activities of any occupational group and tend to utilize areas providing developed recreational facilities more frequently.

Figure II-17 indicates those towns in which a larger than average percentage of the work force is engaged in manufacturing, with Figure II-18 indicating towns in which a larger than average percentage of the work force is white collar workers.

Each of these groups exerts an influence on the demand for all forms of outdoor recreation through their participation rates as well as in the composition of the total population. This is a variable of some significance which must be recognized in assessing recreational needs.

THE CHANGING DEMOGRAPHIC PICTURE

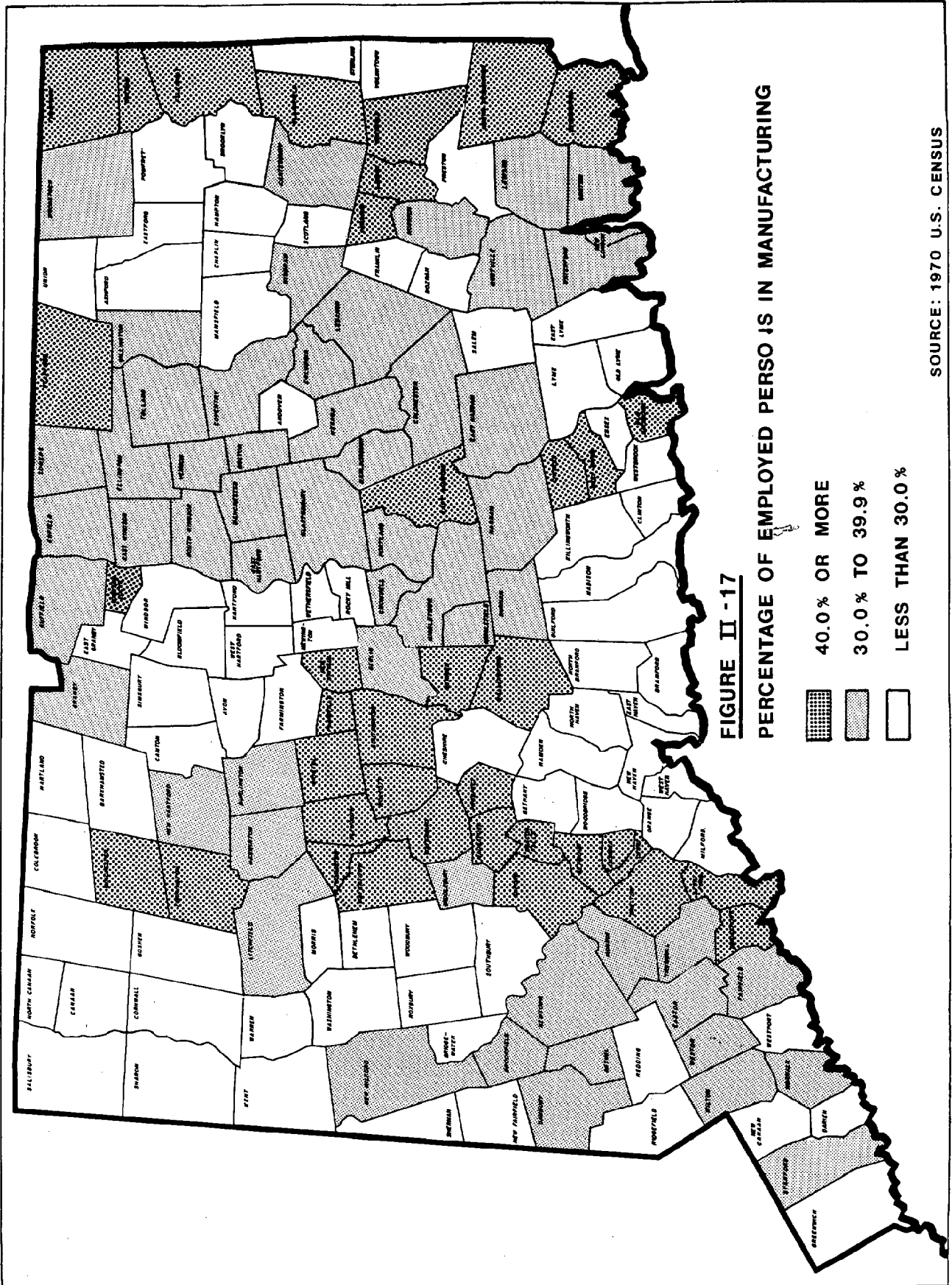
Fifteen years ago, when state planning was in its infancy in Connecticut, considerable effort was devoted to developing future population projections. At the time, Connecticut was experiencing great prosperity, fueled by the rapid economic growth of the 1960's. As a result, large numbers of immigrants running the full range of the socio-economic spectrum were flocking to Connecticut. In addition, U.S. Census information indicated that the post World

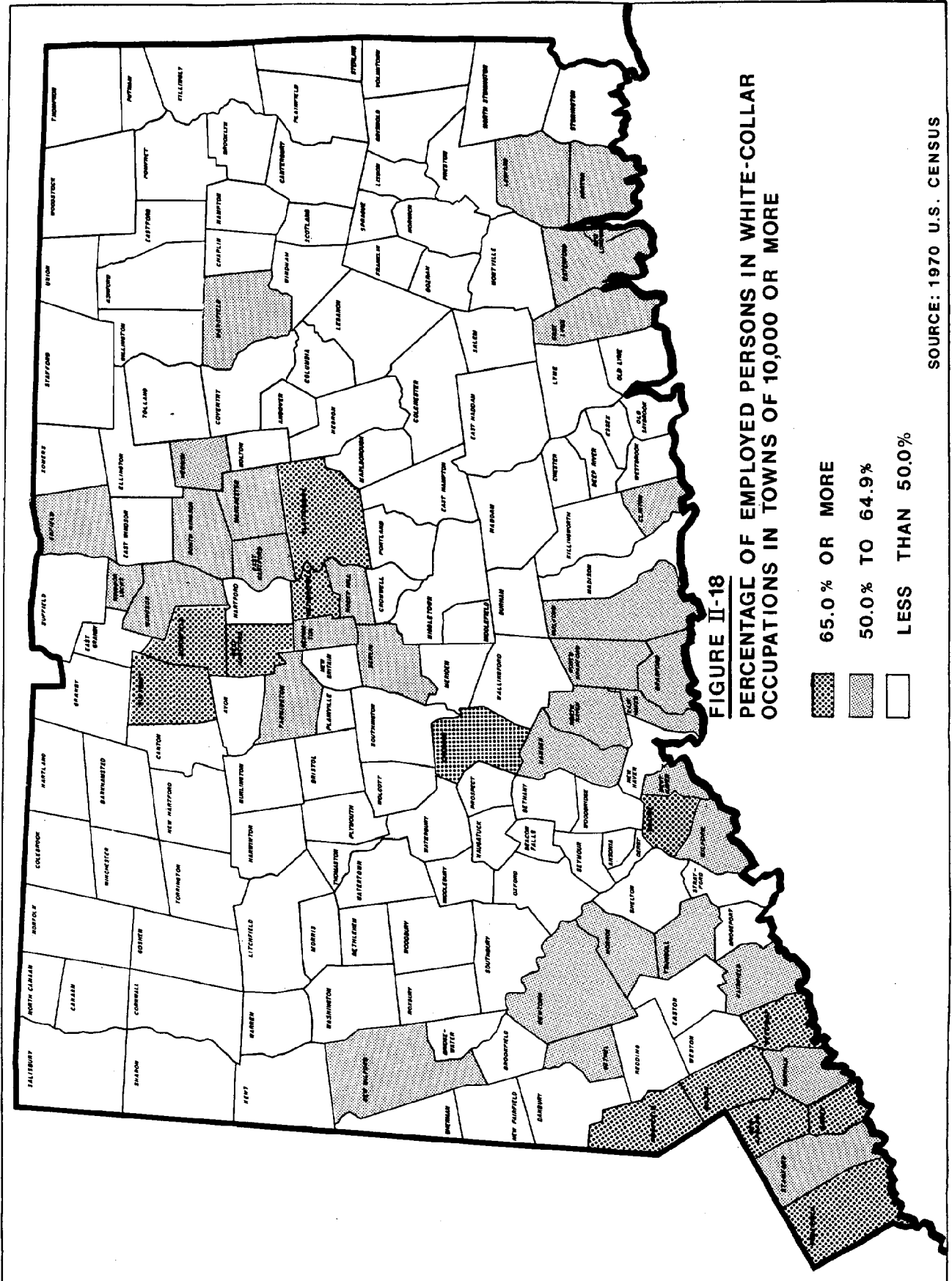
War II period of high birth rates (the "Baby Boom") seemed likely to continue indefinitely.

With these apparently solid indicators in mind, continuation of the rapid rate of population growth experienced in the 1940's and 1950's seemed fully reasonable. Thus in 1965 the staff of the Connecticut Interregional Planning Program, predicted a state population of over 5,000,000 by the end of the century. All state planning in terms of the needs for land for commercial development, housing, highways, and outdoor recreation facilities alike, were tied to this population forecast.

However, the last ten years, and particularly the last five years, have seen some very substantial changes which now mandate a reevaluation of the assumptions upon which estimates of Connecticut's future needs rest. First of all, widespread desire for a smaller family size coupled with the ready availability of birth control methods has resulted in a drastic decrease in the national birth rate. This trend has been experienced most sharply in urban states such as Connecticut, where the annual number of births dropped from a rate of 22.3 per thousand population in 1960 to 16.7 per thousand in 1970. During the early 1970's the birth rate has continued to decline, falling to an all time low of 11.5 per thousand population in 1975.

At the same time, Connecticut experienced a serious post-Vietnam conflict recession which was exacerbated by the energy crisis of 1973. As a result, the state's economic recovery has been slow with many questions remaining regarding its future competitive position. Population-wise, the effect has been substantial, not only in terms of likely delays in starting of families but also in terms of net migration. Available state information





indicated net migration into the state has decreased significantly since the 1960's. It is estimated that net immigration approximates three to five thousand persons annually and is related primarily to changes in the state labor market.¹

As a result of these changes, Connecticut should only experience an average net annual growth rate of 0.7 percent for the rest of the century, for a population in the year 2000 of 3,773,800 versus the five million plus figure predicted in the mid-1960's. In light of slowed population growth, current regional population estimates for the year 2000 are similarly more conservative. The greatest absolute population growth will occur in the Capitol Region (over 100,000) with gains of over 50,000 occurring in the Housatonic Valley, Southeastern, Central Naugatuck, Central Connecticut, South Western, and South Central Regions (Table II-2).

As the state population growth rate decreases, the population will simultaneously get older. Current estimates project that the relative number of children and teenagers (0-19 years) will decrease by one-third between 1970 and 2000 as seen in Table II-3. Furthermore, although the young adult segment of the population (20-39 years) will not decrease between 1975 and 2000, this age cohort is expected to experience a relative decrease from 33 percent of the total population in 1990 to 28 percent in 2000. When these two categories are grouped to encompass the bulk of the most active recreationalists (0-39 years), the basic long-term aging trend of Connecticut's population is clear: a ten (10) percent relative drop from 1975-2000, from 62 percent of the population to only 52 percent.

¹Office of Policy and Management, State of Connecticut. Unpublished Data. June, 1978.

When these changing age cohorts are discussed in absolute rather than relative terms, the effect is still striking. In combination with the dramatic slowing of Connecticut's birth rate, the result is that the 0-39 year age grouping will increase from 1,940,000 to 1,962,000 in the 1975-2000 period, a net increase of only 22,000.

These figures indicate a sharp drop in the formerly expected increase in the younger elements of the population with their higher-than-average per capita participation rates in most forms of outdoor recreation. Even more importantly, they indicate the likelihood of the youthful component of the state's population peaking, followed by a reduction in both younger age groups. This trend will have a continuing impact on outdoor recreation needs in Connecticut as the 0-19 and 20-39 age cohorts progress through their expected demographic cycles.

The effect of these changes in predicted population size on outdoor recreation planning will be substantial for three major reasons. First of all, the absolute size of the future population will be far less than previously expected, indicating a somewhat decreased need for expanded recreational opportunities. Secondly, the sharpest decrease in numbers will be felt in the 0-19 age group, which includes that sector of the population most in need of facilities for active recreational pursuits. Lastly, the changing though cyclical size of key age cohorts through time should have a decided impact on investment priorities, to avoid overdesign to satisfy needs which may be temporary in nature.

In summary, recreational planning in late 20th century Connecticut must take into consideration a population which will increase at a very slow rate and which is likely even to decrease within certain key age cohorts.

TABLE II-2
CONNECTICUT PLANNING REGIONS
POPULATION IN 1970 AND PROJECTIONS FOR THE YEAR 2000

<u>Region</u>	<u>1970</u>	<u>2000</u>	<u>Percent Increases</u>
Capitol	669,907	811,100	21
Central Connecticut	215,147	269,800	25
Central Naugatuck Valley	223,211	287,000	29
Connecticut River Estuary	43,021	69,000	60
Greater Bridgeport	311,130	351,900	13
Housatonic Valley	136,462	201,900	48
Litchfield Hills	68,167	84,300	24
Midstate	78,445	123,600	58
Northeastern Connecticut	58,961	86,150	46
Northwestern Connecticut	18,393	25,700	40
South Central Connecticut	507,837	580,750	14
Southeastern Connecticut	220,402	296,800	35
South Western	333,935	387,000	16
Valley	73,700	102,800	39
Windham	64,376	84,000	30
Non-defined (Stafford, Union)	<u>9,123</u>	<u>12,000</u>	<u>32</u>
TOTAL	3,032,217	3,773,800	24

Source: Connecticut Department of Planning and Energy Policy. Population Projections for Connecticut Planning Regions and Towns 1980-2000. 1976.

TABLE II-3

PAST AND PROJECTED CHANGES IN THE
AGE DISTRIBUTION OF THE CONNECTICUT POPULATION

Age Group	(PERCENT)					
	1960 ^a	1970 ^a	1975 ^b	1980 ^b	1990 ^b	2000 ^b
0-19	36	36	34	29	24	24
20-39	26	25	28	31	33	28
40-64	28.5	29.5	27	27	27	32
65 +	9.5	9.5	11	13	16	16

^a1970 and 1960 Census. Bureau of Census, U.S. Dept. of Commerce.

^bConnecticut Department of Planning and Energy Policy. Connecticut Population Projection by Age and Sex 1975-2000. 1975.

REPORT

3

Recreation Planning In Connecticut

RECREATION PLANNING IN CONNECTICUTDIVISION OF RESPONSIBILITY

To create proper "outdoor recreational opportunities" is to utilize our natural resources of land, water, air, plant and animal life for human recreation and enjoyment by good conservation, design, and management practices. These opportunities do not happen by accident; someone must assume responsibility for their creation and management. In Connecticut this responsibility has been assumed by three major sectors:

- (1) Government - federal, state, regional, municipal;
- (2) Voluntary Associations, for the use of their members or others;
- (3) Individuals and families who create opportunities for themselves and entrepreneurs who sell recreation opportunities as a commodity.

The respective roles of these three sectors have grown out of historical circumstances and continually change in response to new conditions.

ANALYSIS OF THE ROLES OF THE PARTICIPATING SECTORS

Since the objective of this plan is to maximize recreational opportunities for all citizens within the range of available financial and natural resources, the roles and responsibilities that have been assumed by each of the three sectors must be examined.

The ways in which responsibility is divided reflects criteria such as available financial resources and opportunities, legislative mandates, administrative capacity, and technical expertise; these determine which sector can best perform a given role. Where the public sector is involved, the role must conform to principles concerning the appropriate function of government embodied in our traditions and ideals. This role can only be

established after complete evaluation of the total system and the identification of the basic unfilled needs of the public necessary for the health and welfare of the community.

GOVERNMENT

The government or public sector strives to provide every citizen reasonable opportunity to participate with equal access to social benefits. The public sector must provide recreational opportunities which are accessible to all, and must preserve those resources of rare natural beauty and of scientific or historical significance as the rightful heritage of all citizens. On the other hand, those recreational opportunities which require a high capital investment per user and a large personal investment by the participants normally can best be provided by private enterprise. Such facilities would include private luxury campgrounds, resorts, and yacht clubs.

1. Federal

The domain of federal involvement has traditionally been devoted to areas or resources of national or interstate significance. Although much federal attention has been centered upon the national parks and forests, most of which are located in sparsely populated Western states, in recent years there has been increasing recognition of the valuable role the federal government can play in establishing national recreation areas or national seashores near urban centers.

There are many federal programs which provide needed assistance in the field of outdoor recreation to states, municipalities and the private sector, as seen in detailed form in Appendix A. The major source of federal funding has been the U.S. Department of the Interior, Heritage Conservation and Recreation Service's (formerly the Bureau of Outdoor Recreation) Land and

Water Conservation Act Fund (LWCF).¹ In Connecticut, moneys received from the Heritage Conservation and Recreation Service (HCRS) are administered by the Department of Environmental Protection (DEP). Since 1965, the State of Connecticut and its municipalities have received approximately 25.8 million dollars from the Land and Water Conservation Fund.

The Department of Interior's Fish and Wildlife Service, through its Fish Restoration (Dingell/Johnson) and Wildlife Restoration (Pittman/Robertson) programs, have also contributed significantly to the improvement of outdoor recreational opportunities. Connecticut's apportionment of Dingell/Johnson and Pittman/Robertson funds since 1965 has totalled approximately 7.1 million dollars. Both of these programs are 75 percent federal reimbursement. These moneys have been used to fund state fish and wildlife projects and have been the second most important source of federal funding assistance related to outdoor recreation.

Another recreation-related program of the Department of the Interior is Heritage Conservation and Recreation Service's evaluation of surplus Federal real property for transfer to state and local governments for recreation use under the Legacy of Parks Program. However, no surplus lands to date have been transferred to the State of Connecticut or its towns under this program. The Heritage Conservation and Recreation Service also does outdoor recreation research and provides technical assistance and program coordination to the states. The Department of Interior's Geological Survey and National Park Service also operate programs which indirectly add to state and local outdoor recreation opportunities.

Other federal agencies providing a supportive role are the United States

¹The Heritage Conservation and Recreation Service (HCRS) was established as of January 25, 1978; and now has responsibility for the programs formerly administered by the Bureau of Outdoor Recreation.

Department of Agriculture (USDA) and the General Services Administration. Within the Department of Agriculture, the Soil Conservation Service assists in construction of recreation facilities through the Small Watershed and Flood Protection Program (PL 566). In cooperation with the State of Connecticut's Department of Environmental Protection, the Soil Conservation Service, as a member of the Resource Conservation and Development Project, provides planning and technical assistance to local communities. The Forest Service, also within USDA, has supportive roles. The General Services Administration helps provide additional recreational lands through transfer of title of surplus federal properties to interested state and local bodies.

A listing of other federal agencies which can provide financial or technical assistance in the outdoor recreation field includes Commerce (National Oceanic and Atmospheric Administration's Coastal Zone Management Program), Defense (Army Corps of Engineers), Housing and Urban Development (Community Planning and Management and Community Development), Labor (Manpower Administration), and Transportation (Highway Beautification and Highway Planning and Construction). Connecticut public agencies and many non-profit organizations are eligible for aid from these Federal sources.

There are several specific federal laws which deserve special mention for the assistance which they provide to state, regional and local outdoor recreation programs:

(a) Public Law 89-72, the Federal Water Project Recreation Act

- provides for full consideration of opportunities for outdoor recreation, fish and wildlife enhancement on federal navigation, flood control, reclamation, hydroelectric or multiple purpose water resource projects and for coordination with local recreation projects. It provides one-half of separable cost to non-federal public bodies (primarily state and local governments).

(b) Public Law 89-80, the Water Resources Planning Act

- provides financial assistance to the states to increase participation in water resources councils and river basin commissions. Planning grant assistance is available to the states for comprehensive water and related land resources planning programs including outdoor recreation under the Title III provisions.

(c) Federal Water Pollution Control Act as amended by The Clean Water Act of 1977 - Public Law 95-217

The FWPCA Section 201(f) Grants for Construction of Treatment Works states: "The Administrator shall encourage waste treatment management which combines 'open space' and recreational considerations with such management." The establishment of water quality standards and goals for water quality enhancement connects the concept of sewage treatment construction and recreation opportunities. In Connecticut, attainment of Class B quality standards, which allow for water contact recreation and fisheries maintenance, is the policy of the State for most waterways. Inclusion of recreation in planning for treatment systems is specifically required: "Section 201(g) The Administration shall not make grants....unless the grant applicant has satisfactorily demonstrated to the Administrator that the applicant has analyzed the potential recreation and open space opportunities in the planning of the proposed treatment works."

Section 208 Areawide Waste Treatment Management requires that the planning process shall include: "an identification of open space and recreation opportunities that can be expected to result from improved water quality, including consideration of potential lands associated with treatment works and increased access to water based recreation."

(d) Federal Coastal Zone Management Act of 1972 (PL 92-583) as amended by Public Law 94-370

Subsection 305(b)(7) of the Coastal Zone Management (CZM) Act requires that:

"The management program for each coastal state shall include...a definition of the term 'beach' and a planning process for the protection of, and access to, public beaches and other public coastal areas of environmental, recreational, historical, aesthetic, ecological or cultural value."

The Office of Coastal Zone Management, National Oceanic and Atmospheric Administration of the U.S. Department of Commerce has provided under the provisions of the CZM Act funds to Connecticut's Coastal Area Management Program for such coastal recreation planning.

Although Connecticut does not enjoy the recreational benefits of a national park or forest within its borders, the Army Corps of Engineers operates and maintains recreation facilities at five of its 12 flood control projects within the state. These areas primarily accommodate passive forms of recreation such as picnicking, fishing and hunting. Several also provide boat launching and snowmobiling opportunities. Army Corps-operated recreation facilities are located at Colebrook River Lake (Colebrook), Hop Brook Lake (Naugatuck), Northfield Brook Lake (Thomaston), Thomaston Dam (Thomaston), and West Thompson Lake (Thompson). In addition, seven other Army Corps owned areas have been leased to the State of Connecticut for recreation management purposes, including Black Rock Lake (Watertown), East Branch and Hall Meadow Dams (Torrington), Hancock Brook Lake (Plymouth), Mad River Dam and Sucker Brook Lake (Winchester), and Mansfield Hollow Dam (Mansfield).

2. State

The State has assumed responsibility for providing those recreation opportunities which are largely natural resource-based. Although these resources are not equally distributed throughout the state, access to such opportunities

should be available to all citizens regardless of their place of residence. More specifically, the State's responsibility is to provide those recreational opportunities which require open space holding and natural settings appropriate for such uses as trail activities, hunting, fishing, and backwoods camping. It must also assume most of the responsibility for providing regional opportunities for swimming, boating, and associated picnicking activity. Particular reference should be made to the State's responsibility for providing public access for all water-based activities to the key recreational resource provided by Long Island Sound.

The State also must provide for the preservation of those sites of unusual scenic beauty and educational or scientific interest as well as those sites which are significant in Connecticut's history and culture.

As detailed in Appendix A, the Department of Environmental Protection (DEP) has the primary responsibility for State recreation programs.

The Department is divided into a Division of Conservation and Preservation, a Division of Environmental Quality and a Central Services Section. The Division of Conservation and Preservation manages and operates the State park and forest systems, plans and designs new recreation facilities, and manages State lands under the Department's control including trails and public access lands. The Division of Conservation and Preservation is responsible for fresh and salt water fisheries, wildlife management, boating recreation management and administers Pittman/Robertson and Dingell/Johnson funds.

The Division of Environmental Quality includes the State's coastal area management program and its environmental quality regulatory programs. The Coastal Area Management Unit within this Division is responsible for developing a coordinated management system for Connecticut's coastal land and water resources. This planning program includes identifying critical recreation

areas and developing a land and water use strategy. Part of these planning activities is the study of public accesss to the coast and Long Island Sound for outdoor recreation.

Within the Central Services section of the Department, the Planning and Coordination Unit is responsible for long range recreation planning which has the objective of analyzing recreation demand and development of a plan to meet supply deficiencies. The State Comprehensive Outdoor Recreation Plan (SCORP) which results from this analysis is utilized to guide federal and state investments in acquisition of land and development of outdoor recreation facilities. Also in Central Services, the Land Acquisition Unit is responsible for acquiring land for recreation and natural and cultural heritage protection. The unit administers the U.S. Department of the Interior's Land and Water Conservation Act funds, and state and federal financial assistance to local governments for acquisition and development of outdoor recreation facilities.

Other State of Connecticut agencies contribute to the enhancement of recreational opportunities through their professional planning functions. One of the most important is the Office of Policy and Management's planning program and its development of general state policies relating to outdoor recreation as presented in the 1974 Plan of Conservation & Development for Connecticut. SCORP, as well as other state plans, must conform with these policies. This plan is presently being revised and will be presented in the 1979 session of the Connecticut legislature. Department of Transportation programs include planning of bikeways along the state highways. The Department of Commerce, as part of its tourism promotion, creates awareness of the state's recreational opportunities. This Department also provides funding

Program (Special Act No. 77-47). The Department of Social Services administers an innovative program (Title 20) to provide transportation to state recreational areas for inner city youth, which has greatly enhanced their outdoor recreational opportunities. The Connecticut Historic Commission's preservation of significant historic landmarks contributes to the overall scenic and cultural enhancement of the State. The Commission administers the Federal Historic Preservation Fund. A total of \$468,898 was allocated in 1977 for historic preservation projects in Connecticut.

Two quasi-state organizations associated with the Connecticut Department of Environmental Protection also have responsibilities relating to outdoor recreation. The first is the Citizens' Advisory Council to the Division of Conservation and Preservation of the Department of Environmental Protection and is comprised of representatives of sportsmen clubs, camper associations, trail users, and natural resource interest groups. The Advisory Council reviews state programs and policies affecting recreation and lands, and makes recommendations to the Department on improvements. The second is the Connecticut River Gateway Commission. Established in 1975, the Commission is made up of local representatives from the lower Connecticut valley towns of Old Saybrook, Essex, Deep River, Chester, Haddam, East Haddam, Lyme and Old Lyme, and representatives of the Mid-State and Connecticut River Estuary Regional Planning Agencies. Within the conservation zone established, the Commission has responsibility to preserve the scenic, ecological, scientific, and historic values of the riverway through zoning and the purchase of easements and development rights. To date, one conservation easement has been donated to the Department of Environmental Protection utilizing Land and Water Conservation Act funds.

3. Regional

Outdoor recreation and open space planning is done at the regional level

by the 15 Regional Planning Agencies in Connecticut. Most of these multi-town regions, as part of their regional land use and development planning efforts, inventory existing recreational facilities and assess the recreation needs of the region. The Regional Planning Agencies have played an active role in the public participation element and the needs assessment of this plan.

In the greater Hartford area, the Metropolitan District Commission (MDC), which provides water and sewer services to Hartford and most of its surrounding towns, also provides passive outdoor recreation where compatible with public water supply uses. On lands surrounding its reservoirs in West Hartford and Bloomfield, trail activities are accommodated including walking, bicycling, jogging, and cross-country skiing. In addition, the MDC maintains a swimming facility in Barkhamsted with picnicking and boat launching on Lake MacDonough (formerly Compensating Reservoir).

The state is divided on the basis of counties into eight Soil and Water Conservation Districts. The role of the Soil and Water Conservation District Boards is to advise the Commissioner of the Connecticut Department of Environmental Protection (DEP) on matters of soil and water conservation, erosion and sedimentation control. The Soil and Water Conservation Districts provide technical assistance to towns, regional agencies, and landowners. The Districts have had, in cooperation with the U.S. Department of Agriculture's Soil Conservation Service and DEP, a regional outdoor recreation planning role, including inventories and studies of regional outdoor recreation resource potentials.

4. Municipalities

The appropriate area of responsibility for municipalities is to provide those desired recreation facilities which primarily serve local residents

either at the neighborhood level or the town as a whole. These include a broad range of facilities such as playgrounds, playfields, neighborhood parks, and community-wide parks offering opportunity for formal and informal field and court games, swimming, and picnicking. Many towns also offer opportunity for boating access, fishing, walking, and various other active and passive recreational activities of a locally based nature. This historic limitation of concern does not, however, preclude the possibility of cooperative arrangements among adjoining communities for sharing recreational resources or combining financial resources for maximum effect.

As in other New England states, Connecticut's 169 towns are bodies with wide powers of self government and with responsibility for providing a full range of services to their residents. Connecticut's communities vary widely in their response to the need for providing recreational services. Larger communities, including an increasing number of suburbs, can afford full-time professional direction and a broad range of programs for residents. On the other hand, many small towns have to rely in large part upon boards or commissions composed of public-spirited citizens to perform this task, as detailed in the listing of conservation commissions, park and recreation commissions and parks and recreation directors by community in Appendix A.

Connecticut's municipalities heavily rely on Land and Water Conservation Act funds (LWCF) for land acquisition and development of outdoor recreation facilities. The state's towns have received almost 14 million dollars in LWCF moneys since 1965. In addition to acquiring open space and recreational land, state enabling legislation allows towns in their regulations for subdivisions (Sec. 8-25) and for planned unit developments (Sec. 8-13d) to require the setting aside of public open space for parks and playgrounds.

Other local government organizations contribute to the development of recreation opportunities. The Connecticut Conference of Municipalities, which represents the interests of Connecticut's larger communities, has recently cooperated in a private land gift training program sponsored by the Department of Environmental Protection and U.S. Department of Interior, Heritage Conservation and Recreation Service. The value of private donations of land may be utilized as the state or local communities' 50% share of the project costs for matching federal Land and Water Conservation Act funds.

VOLUNTARY ASSOCIATIONS

The quasi-public sector, represented by various voluntary associations, meets needs which neither the public sector nor private enterprise have provided. Thus, service organizations may provide badly needed recreation facilities for their communities, a local historical society may take action to save a threatened landmark, or a conservation group might acquire a wild-life area which is about to be sold for development.

Because they are goal rather than profit-oriented, voluntary associations can select their focus of involvement. In so doing, these organizations can serve a valuable role in providing recreational opportunities of a specialized nature often not provided by government or by private commercial enterprises.

Connecticut is fortunate in possessing many voluntary associations which collectively have made substantial contributions to the available supply of outdoor recreation opportunity in Connecticut. Some have been statewide in concern, while others have been more regional or even local in nature. Nevertheless, all have played a useful role in preserving open space, in developing and maintaining recreational facilities, in assisting the public sector in its land preservation and recreation programs, and in acting as a

watchdog for recreational and preservation interests. Several statewide organizations worthy of special recognition are:

The Connecticut Forest & Park Association, which has coordinated the development and operation of Connecticut's excellent Blue Trails System and served as a spokesman for outdoor recreation, conservation, and wise natural resource utilization viewpoints.

The Nature Conservancy (Connecticut Chapter), which has acquired approximately 8,000 acres to preserve ecological diversity through the protection of natural areas which are open to the public for passive recreation as well as for scientific and educational uses. Also, the Conservancy has assisted state and local governments in the acquisition of desirable properties.

A partial listing of other organizations which have significantly contributed to the outdoor recreation opportunities in Connecticut is found in Appendix A.

INDIVIDUALS AND ENTREPRENEURS

Members of the private sector choose roles and responsibilities according to their respective skills, opportunities, and financial resources. Roles and responsibilities cannot be assigned to the private and quasi-public sectors since they voluntarily define their own roles. Their overall objectives determine what accomplishments they may make.

The degree of an entrepreneur's involvement depends on his ability to raise investment capital and the likelihood of such enterprise providing a satisfactory return on investment. The most suitable role for this sector

is, therefore, to provide recreation opportunities which can be used intensively, efficiently, and for which the consumer is willing to pay full costs. Marinas, ski areas, resorts, family campgrounds, tennis courts, golf courses, and riding stables are among the facilities this sector can provide.

The individual has also played an important historic role in meeting recreational demands in Connecticut, as seen particularly in the common use of backyard pools of varying degrees of refinement as well as play and barbecueing equipment. Many individuals also satisfy their own desire for hunting, fishing, horseback riding, and snowmobiling on their own land.

More significantly, organized or non-commercial individual action has resulted in a great deal of recreational opportunity, most notably the many sportsmen's clubs, beach and lakefront associations, and swimming and golf clubs. Although basically limited to members, the facilities of such voluntary organizations are truly a major asset to Connecticut in meeting the recreational demands of significant segments of its population.

Activities of the private and quasi-public area are so important to the total outdoor recreation system that it is impossible to overemphasize their significance. The future of recreation will increasingly depend on this sector as the government becomes less able to meet the rapidly-growing needs placed upon it. As leisure time increases, the demand for recreation opportunities will increase concomitantly. The role of the private and quasi-public sectors will have to expand as the various levels of government which comprise the public sector fail to meet the full spectrum of the recreational needs of Connecticut citizens.

Perhaps the most significant contribution by the private sector to Connecticut's outdoor recreation opportunities has been the willingness of private land owners to allow passive recreation on their properties. The

utilization of private lands for hunting, fishing, horseback riding, trail walking, cross-country skiing, bird watching and other pursuits has made it possible for state and local governments to concentrate their resources on more active intensive recreation demands. As a densely populated state, Connecticut has most of the land use conflicts which arise from public use of private lands yet significant acreage at present continues to be open to the courteous sportspersons and recreationists. However, due to these land use conflicts and development pressures, the acreage of private lands available is rapidly decreasing. As development pressures upon remaining lands continues to increase, government will be forced to purchase additional acreage and easements to meet these demands.

Gifts of land or easements by individuals or businesses constitute an important addition to the land acquisition and development programs of government. Donations of land can reduce federal income taxes while providing matching funds for state and local governments under the Land and Water Conservation Act. In the last three fiscal years (1975/76, 1976/77, and 1977/78), the State of Connecticut's open space acquisition program received 1,167 acres with an approximate market value of \$858,283 in gifts. When matched with Land and Water Conservation Act funds, a total in excess of \$1.7 million was added to the State's funds for outdoor recreation acquisition and development.

Assessment of Recreational Needs

ASSESSMENT OF RECREATIONAL NEEDSOUTDOOR RECREATION OPPORTUNITIES AND NEEDS AT THE STATEAND REGIONAL LEVEL

Outdoor recreation at the state and regional level encompasses all recreational activities in which most of the users must travel more than five to ten miles in order to participate. These activities are dependent upon the presence of a particular natural resource that is not commonly found at home or in the neighborhood, such as ocean beaches, forests, scenic landscapes, or fishing streams. Because they involve some travel, they are activities which usually require at least a few hours of leisure time: the day outing, the overnight weekend trip, and the holiday vacation. Recreational activities generally found within this category are fishing, hunting, hiking, skiing, snowmobiling, canoeing, boating, camping, picnicking, swimming and sightseeing.

Most of these activities are accommodated on state lands, but some recreational facilities drawing attendance from beyond their immediate localities are municipally-operated (e.g. major swimming beaches and some major urban parks), and others are provided by commercial enterprises (marinas, campgrounds, resorts).

STATE FACILITIES

In the 1974 SCORP, State holdings were categorized under a new land management classification system whose intent was to replace an increasingly obsolete system with one which more closely approximated both the physical character of specific properties and the planned use of them. Although budgetary and staffing limitations have not allowed its implementation,

the 1978 SCORP will again utilize this approach in classifying DEP lands because it offers considerable potential for an effective long-term land management system. As summarized below and as detailed in Appendix B, State properties comprise a very wide range of recreational facilities including:

1. State Forests - These are lands managed on a multiple-use basis for silviculture and harvesting of forest products, protection of watershed quality enhancing fisheries, wildlife habitat including game species harvesting, and natural resource protection. Extensive recreational activities allowed are fishing, hunting, trapping, hiking, snowmobiling and horseback riding. Portions of state forests may be utilized as state recreation areas.

2. State Parks - An area of sufficient distinction to attract visitors from all parts of the state and out-of-state for the purpose of participating in recreational, educational and/or cultural activities. These areas contain unique and outstanding scenic and/or natural qualities and are of sufficient size to be used for recreational activities without impairing these qualities. State Parks vary in size from 72 acres to over 2,000 acres. Included in this category are the three state beaches: Rocky Neck, East Lyme; Hammonasset, Madison; and Sherwood Island, Westport. Activities which are offered at State Parks include swimming, fishing, boating, canoeing, picnicking, hiking, camping and other extensive and intensive uses. The management of State Parks may incorporate silviculture activities and wildlife management.

3. State Recreation Areas - These areas within the various state land categories are oriented toward intensive recreational activities such as swimming, picnicking, camping, boating, ice skating and field sports.

4. State Heritage Sites - The designation "State Heritage Site" applies

to sites possessing unique historical, cultural, geological, or archeological features. There are presently 18 heritage sites, including a number of monuments, an arboretum, three forts, and an archeological site featuring an excellent collection of dinosaur tracks. Some of these sites offer interpretive programs for visitors.

5. State Reserves - Under the new land classification system, State Reserves are land and water holdings which offer various options for future management as agency policy regarding optional use becomes developed and as development moneys become available. Among the sites included in this category are seashore tracts, lakes, islands, conservation and scenic areas, trails, and environmental corridors.

6. State Natural Area Preserve - An area of land and/or water containing unique plant or animal life or geological features so managed as to preserve them in their natural state consistent with their educational and scientific values.

7. Fish and Wildlife Management Areas - Lands managed primarily for fish and wildlife habitat which support wildlife management and extensive recreation such as field trails, hunting, fishing, bird watching, and nature walks. These areas may contain boat launching sites which provide access to inland lakes, rivers and streams, and the waters of Long Island Sound.

OTHER FACILITIES OF STATE OR REGIONAL SIGNIFICANCE

In addition, Connecticut contains a limited number of other public facilities of regional significance. Noteworthy among them are the U.S. Army Corps of Engineers Flood Control Projects, which offer approximately 5,000 acres of open space and some developed recreational facilities. These

include the West Thompson, Hop Brook, Northfield Brook, Black Rock and Colebrook River Lakes.

Other facilities include opportunities for swimming, boating and fishing at the Metropolitan District Commission's (MDC) Compensating Reservoir in Barkhamsted and for hiking, bicycling, jogging, and cross-country skiing in the large MDC watershed reservation in West Hartford.

Also worthy of mention are power company properties. A number of power company properties currently offer fishing and casual uses at sites such as Haddam Neck and Montville. However, a much greater potential can be seen at other power facilities currently undergoing Federal Energy Regulatory Commission licensing procedures. The major areas offering potential increased public accommodations are the Rocky River (Lake Candlewood), Shepaug (Lillinonah), Stevenson (Lake Zoar) and Bulls Bridge projects on or adjacent to the Housatonic River in western Connecticut.

Also noteworthy are the 17 hiking trails comprising the "Blue Trails" System. These trails total 500 miles and are distributed throughout most of the state. Although located in part upon holdings of various public and quasi-public agencies and organizations, these trails consist largely of rights-of-way maintained on private property by private groups and through the cooperation of the landowners.

WATER BASED ACTIVITY SYSTEM

Water is the central attraction for most of the popular outdoor recreational activities. It contributes to the scenic beauty of hiking trails, camp sites and picnic areas as well as providing diversity to the recreational experiences of fishing, boating, swimming, canoeing, nature walks and hunting.

Lands along waterways are particularly valuable in providing diversity of habitat for wildlife and serve as flood plains retaining potentially destructive runoff. Those recreation areas which have water access have the highest recreational values.

Water is a natural resource which has been much abused by human activities which directly or indirectly contribute pollutants, reducing the quality and value of water for biological communities and recreation. The recognition of water's importance has led to a concerted and coordinated effort to reduce pollution and restore its natural qualities.

In Connecticut, more than one billion dollars has been invested in municipal waste treatment systems since 1965.¹ Private industry has made additional investments of more than \$41 million in the period 1971-1976.² These capital costs are reflected in federal, state and local governments' budget expenditures along with millions of dollars in annual operating and maintenance costs and in the price of goods and services paid by consumers to reduce the social costs of pollution. Improved control of sources of water pollution present an opportunity for state and local governments to increase their citizens' recreation potentials.

Water's key link to recreation can be reflected through analysis of the public's demand for water-based recreational activities and the availability of facilities, access ways and opportunities to participate in these activities. An analysis of supply and demand characteristics can contribute

¹Water Compliance Unit of Connecticut DEP.

²Thomas S. Kuharski, A Study of State Tax Incentives for Pollution Abatement Equipment, Conn. Dept. of Environmental Protection, Hartford, Conn., Dec. 14, 1976.

to an understanding of where deficiencies in the supply system exist or may be expected to develop over the next few years. Recreation demand is dynamic and subject to shifts in popularity of certain activities. Recent popularity of canoeing and kayaking are examples of rapidly increasing demands on water resources. Therefore, studies of recreation demand have limitations imposed by shifting public interests as well as normal sampling difficulties. Similarly, measures of the supply or delivery capability which must reflect quality of experience often require judgments on capacity standards such as number of square feet of beach area per user. The following analysis of water-based recreational activities utilizes "best judgment" criteria for measuring adequacy of the available resources, resulting conclusions and recommendations. (See Appendix C.)

SWIMMING

Swimming is among the most popular of recreational activities as detailed in the 1961 study by the fact-finding ORRRC (Outdoor Recreation Resources Review Commission) Study and in many subsequent national and state level studies on outdoor recreation. Indeed, it frequently seems to be the dominant warm season sport, serving as a focal point around which a whole syndrome of other activities such as picnicking, sunbathing, camping and even fishing and boating tend to cluster. Furthermore, it may serve this role with the local, day use, weekend, or vacation recreational outing alike.

Because of the complex and diverse nature of swimming as a recreational activity, it may occur at a range of sites, including the artificial pool, the semi-artificial small impoundment or bypass pool, the lakeside beach, or the saltwater beach of Long Island Sound. Each has certain advantages and disadvantages as follows:

1. Artificial pool - The managing agency has tight control over the quality of water and over the type and intensity of use. Furthermore, the indoor pool also can be used in periods of poor weather throughout the summer as well as throughout the year. On the other hand, such facilities usually are crowded, of necessity highly regimented in their management, and also lack any semblance of nature. However, they may offer the sole option for providing needed recreation in metropolitan areas and other sections of the state lacking adequate natural or seminatural swimming potentials. Hence they are commonly used by urban and suburban communities not located on Long Island Sound.

2. Semi-artificial impoundment or bypass pool - A form sometimes transitional to the purely artificial pool. Subtypes may include the small impoundment on a stream, dugout bypass pool perhaps utilizing a combination of stream and groundwater, or variants which have been at least partially concreted or asphalted or which have been converted to utilize municipal water with refiltering equipment. These have been commonly used in Connecticut's state parks (11 out of 19 existing inland state swimming facilities) and in many inland rural and suburban communities lacking a large water body suitable for swimming. Despite their frequent historic usage, these facilities possess many shortcomings to offset their more natural setting. These liabilities may include lack of control of water quality, a steadily degrading water quality on urbanizing watersheds due to increased pollution and turbidity, an undependable supply of water to permit needed flushing, and weed and turbidity problems. Thus, there is growing pressure to close such facilities and to replace them with facilities more suitable to proper management. The semi-artificial impoundment is not a viable swimming facility

in Connecticut and has been excluded from all future plans for state swimming facilities.

3. Freshwater beach - Thanks to the Ice Age, Connecticut contains a number of good natural lakes as well as some man-made water bodies which have the physical character to support swimming on a substantial scale. In such cases, a quality recreational experience may be available, enhanced by the largely natural setting. Therefore, such lakes are a major attraction in those Connecticut communities, largely in the Eastern and Western Highlands, which are fortunate enough to have one within their boundaries. However, the natural process of eutrophication, hastened by man-caused inflows of nutrients from lake cottage septic tanks, lawns, and farms is increasingly causing undesired results such as weed growth, algae blooms, and greater turbidity and the inevitable degradation of the state's lake resources without the implementation of a Connecticut 208 Areawide Waste Treatment Management Program.

4. Saltwater beach - Perhaps the most popular form of swimming is that utilizing Connecticut's oceanside beaches on Long Island Sound. Although saltwater swimming has the potential for a high quality recreational experience, the extreme pressure of use on this limited resource base coupled with its limited geographical occurrence in the state, are serious problems. Nevertheless, the saltwater beach is frequently utilized as a municipal or state swimming facility.

Supply

As seen in Table IV-1, Connecticut contains 170 public swimming facilities, almost two-thirds of which are freshwater in character. The estimated instant capacity of these is nearly 265,000.

TABLE IV-1
EXISTING INSTANT SWIMMING CAPACITY

	<u>Number of Freshwater Facilities</u>	<u>Estimated Capacity</u>	<u>Number of Saltwater Facilities</u>	<u>Estimated Capacity</u>	<u>Total</u>
State	19	34,600	3	60,500	95,100
Local (Unrestricted)	56 (47 towns)	34,165	32 (12 towns)	96,350	130,515
Local (Restricted-Residents Only)	30 <u>26 towns</u>	8,520 _____	30 <u>13 towns</u>	30,350 _____	38,770 _____
Totals	105	77,285	65	187,200	264,385

The major categories within this total include:

1. Some 22 state facilities with a capacity of 95,100 people. These range greatly in scale from three large shoreline parks which alone have nearly two-thirds of this subtotal to a sizeable number of small to moderate sized inland parks with an average instant capacity of less than 2,000 people.

2. Eighty-eight municipal facilities open to the general public with a capacity of some 130,000-odd people. Although the inland parks are smaller in average size than the saltwater parks, the shoreline beach size is distorted by Seaside Park in Bridgeport which alone contains one-third of the sub-category's total.

3. Sixty municipal facilities restricted to residents only with an instant capacity of less than 39,000. Although their restricted nature is a subject of considerable controversy, it is interesting to note their generally small size (an average of less than 700 person capacity) and small proportion (less than 15 percent) of the total capacity of all public swimming areas in Connecticut. It should be similarly noted that most of the restricted local beaches are saltwater versus freshwater. Of the 24 towns on Long Island

Sound, 13 have restricted beaches with an estimated capacity of 30,350. This represents 16 percent of the total saltwater swimming capacity.

To better understand the state's swimming supply, its limitations and potentials, requires, in addition to a quantification of instant capacity, an examination of the overall status of the state inland swimming areas which serve as regional facilities. Figure IV-1 "Connecticut State Inland Swimming Areas," offers an evaluation of the 19 existing state-owned inland swimming areas. These areas are characterized by an existing level of use resulting in beach loading (square feet of sandy beach per person) far in excess of the recommended standard, little or no opportunity for expansion of swimming facilities, and varying water quality problems as evaluated by the Department's Parks and Recreation Unit.

Water quality in the small watershed typical of these state inland swimming areas is especially sensitive to urban activities and the introduction of any pollutant within the watershed. For example, excessively high coliform bacterial levels in swimming water has caused periodic closure of the swimming area at Mashamoquet Brook State Park in the interest of public health. Continuing acute deteriorating conditions may cause permanent closure of this swimming area in northeastern Connecticut. Similarly, water quality problems have caused temporary closures at Wharton Brook (Wallingford) and Stratton Brook State Parks (Simsbury).

Demand

As discussed in detail in Appendix C, various estimates of swimming demand have been made for Connecticut; neighboring states, Massachusetts and New York; and the regional and national levels. Most analyses have been based on the estimation of the percent of the study population which

FIGURE IV - 1
CONNECTICUT STATE INLAND SWIMMING AREAS

FACILITY	OVERALL RATING		WATER QUALITY		FLOW DURATION		VOLUME DURATION		COLIFORM		CHEMICALS		COLOR		ALGAE		BEACH AREA (acres)		BEACH LOADING (sq. ft./person)		LANDSCAPE QUALITY		EXPANSION CAPABILITY		REMARKS
	GOOD	EXCELLENT	GOOD	EXCELLENT	SATISFACTORY	UNSATISFACTORY	GOOD	EXCELLENT	SATISFACTORY	UNSATISFACTORY	GOOD	EXCELLENT	GOOD	EXCELLENT	SATISFACTORY	UNSATISFACTORY	GOOD	EXCELLENT	SATISFACTORY	UNSATISFACTORY	GOOD	EXCELLENT	SATISFACTORY	UNSATISFACTORY	
BLACK ROCK	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/3	6	●	●	●	●	●	●	Steep beach difficult to maintain
BUER POND	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	3/4	24	●	●	●	●	●	●	Steep terrain restricts expansion
CHATELAIN HOLLOW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/3	7	●	●	●	●	●	●	Level of use is excessive now. Steep terrain excludes expansion.
DAY POND	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/4	14	●	●	●	●	●	●	Small watershed, limited acreage and terrain excludes expansion.
GAY CITY	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1	25	●	●	●	●	●	●	Small watershed, limited acreage and terrain excludes expansion. Prime artificial pool site.
GREEN FALLS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/100	1	●	●	●	●	●	●	Rough terrain, ledge and boulders restrict expansion.
HALL MEADOW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/3	5	●	●	●	●	●	●	By-pass pool limits flow. Valley terrain limits expansion.
SUNNYSIDE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/3	5	●	●	●	●	●	●	By-pass pool limits flow. Valley terrain limits expansion.
HOPKINS POND	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/2	16	●	●	●	●	●	●	Swimming in large stream. Expansion capability on existing state-owned land.
KETTLETOWN	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/3	5	●	●	●	●	●	●	Swimming in cove on large stream. Terrain and water quality problems limit expansion.
INDIAN WELL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/4	2	●	●	●	●	●	●	Swimming at bank of large river. Expansion with relocation of existing boat launch.
LAKE WANAUGA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4/100	2	●	●	●	●	●	●	Expansion with land acquisition only.
MASHANQUET BROOK	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/3	9	●	●	●	●	●	●	Water frequently contaminated in watershed has caused periodic closing of swimming area. Limited beach. Expansion potential with land acquisition only.
MOUNT TOM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2/10	6	●	●	●	●	●	●	Expansion limited by availability of parking.
QUADDICK POND	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/2	16	●	●	●	●	●	●	Expansion with land acquisition only.
SQUANTZ POND	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6/10	4	●	●	●	●	●	●	Future dependent upon activity in watershed as by-pass pool. High siltation potential.
STRATTON BROOK	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/2	45	●	●	●	●	●	●	Water source - streambank wells. Future limited by activity in watershed.
WADSWORTH FALLS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4/10	12	●	●	●	●	●	●	Limited watershed. Future limited by activity in watershed.
WATSON BROOK	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1/3	5	●	●	●	●	●	●	Future limited by activity in watershed.

*Recommended standard
75 sq. ft./person

Source: Connecticut Department of Environmental Protection, Parks and Recreation Unit. 1978.

CONNECTICUT STATE INLAND SWIMMING AREAS

Definitions

Overall Rating -	A subjective evaluation of the capability of a facility to provide a satisfying swimming experience.
Water Quality -	An evaluation of the suitability of water adjacent to the beach for swimming purposes based on factors of color, purity, etc.
Flow Dilution -	The movement or flow of water through a swimming area related to the State Health Code.
Coliform -	Swimming water quality evaluation based upon the persistent presence of potentially harmful bacteria during the past five years.
Chemicals -	Presence of potentially harmful chemicals, such as polychlorinated biphenols (PCB's) or chlorine (Cl ₂).
Color -	The relative clarity of swimming water. Unflavored coloration is usually due to the presence of tannic acid.
Algae -	The relative level of algae present causing turbidity and unsightliness.
Beach Size -	The area at the water's edge covered by sand.
Landscape Quality -	A subjective evaluation of the aesthetic qualities which make a beach attractive for public swimming activities.
Expansion Capability -	An estimate of expansion potential related to such factors as topography, space for parking and related needs, water quality, and present and desirable beach loading level.

Source: Connecticut Department of Environmental Protection, Parks and Recreation Unit. 1978.

participates in an activity at least once during the year. Based upon such participation rates, an estimate of the instant resident demand can be derived. While the percent of the population participating in the activity is highest on certain key days such as the 4th of July and Labor Day, the planning for capacity is based upon the average peak demand as measured over the recreation swimming season primarily with weekend use the key indicator of facility adequacy.

The 1968 Connecticut SCORP utilized data from a statewide telephone survey to determine participation rates. This survey indicated an instant resident demand of 10-15 percent of the population. Statistical analysis of this survey predicted a 1975 instant swimming demand of 12.3 percent at "State Parks" and other public facilities. Efforts to refine this standard during preparation of the 1978 SCORP included review of a number of other studies, of which the related New York State and Tri-State Planning Region demand analyses seemed both most statistically reliable and comparable to the Connecticut situation. The swimming participation rate in Connecticut's portion of the Tri-State Planning Region was estimated to be 47 percent compared to 50.7 percent for New York State. New York State's "Design Day" estimate is for 12.5 percent of the total population to be using public facilities on an average peak weekend day. The general validity of Connecticut's 1968 SCORP estimate of "Instant Demand" being 10-15 percent of the Connecticut population seems to be borne out.

Therefore, public swimming facilities' instant demand can be estimated to be in the range of 310,000 to 375,000 persons in 1975 with instant demand increasing to 375,000 to 450,000 persons by the year 2000 based on forecasted population growth.

Needs

The foregoing discussion indicates that public swimming facilities in Connecticut have an instant design capacity of roughly 265,000 people, although roughly 15 percent of this capacity is restricted to residents only (however, most of these restricted facilities also are heavily utilized and have little unused capacity). Against this supply must be weighed an estimated instant demand in the range of 310,000 to 375,000 in 1975, a figure likely to jump to 375,000 to 450,000 by the end of the century. Therefore, the present scale of unmet needs is most likely in the magnitude of 50,000 to 100,000 and should jump to double that level by 2000 A.D.

Although this analysis implies a major statewide deficiency of swimming opportunity, the picture differs somewhat from region to region as seen in Figure IV-2. Although we might expect that the entire urban spine of Connecticut would be a deficient area, the ready availability of Long Island Sound gives nearly all coastal communities a fair to good rating in terms of providing swimming opportunity. Similarly, municipalities in the Northeastern, Northwestern, and Litchfield Hills Planning Regions with access on larger water bodies generally also possess a satisfactory swimming capability. On the other hand, inland metropolitan areas such as the Capitol and Central Connecticut Regions are seriously deficient in swimming opportunity and thereby pose the greatest challenge to state recreation decision-makers.

Recommended Actions

To correct these shortcomings, a number of recommended actions should be undertaken by state and local government as follows:

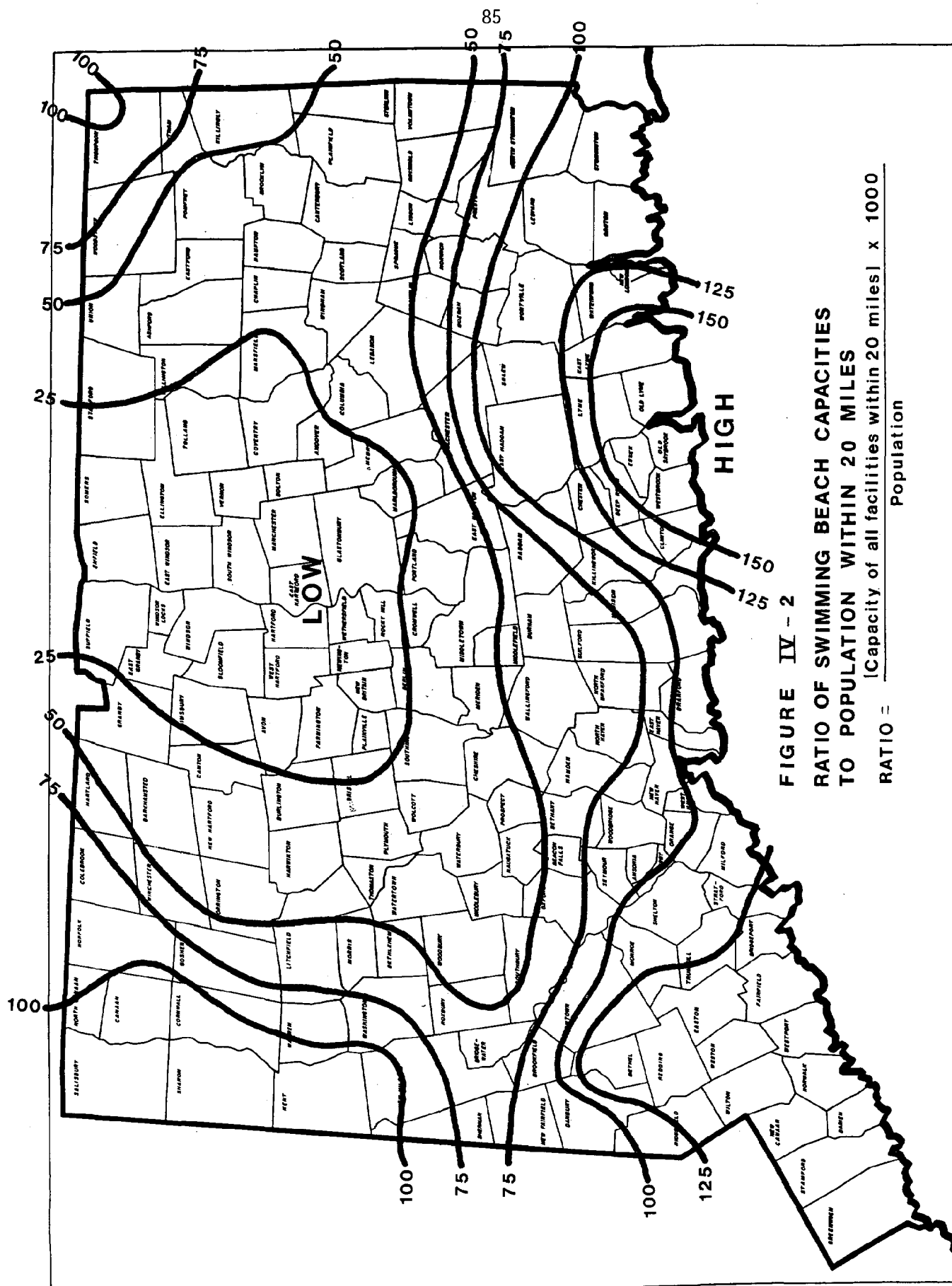
State Government - In the absence of county government, the State of Connecticut has the responsibility to provide regional as well as statewide

swimming facilities. Key steps should include:

1. Improve the quality and expand the capacity of existing state parks wherever physically feasible and where serious environmental impact will not result. Top priority should be devoted to those saltwater beaches where the largest increases in design capacity can be achieved. For example, the development of Silver Sands State Park could eventually increase instant capacity for saltwater swimming by 10,000 users.

2. Few, if any, shoreline beaches on Long Island Sound remain undeveloped. To expand opportunities for coastal water-based recreation will require a program of acquisition and development to provide increased public access and recreational facilities along Long Island Sound. Such a program of development should include (a) an inventory of all natural beaches, publicly and privately owned, and selection of those with the greatest recreation potential; and (b) establishment of a state first-option for purchase of identified key coastal resource lands combined with establishment of flexible contingency funds to assure timely exercise of that option in developed areas when struck by major disaster (hurricane, flood, fire, etc.), causing key resource lands to suddenly become available for state purchase.

3. Existing state inland swimming areas, where possible, should be expanded to reduce present high beach loading to more desirable levels. Expansion of these facilities to recommended standards would improve significantly the quality of the swimming experience while increasing user capacity. Six existing inland swimming areas offer opportunity for expansion. Mt. Tom (Litchfield) is the prime area for expansion of a natural facility due to its uniquely high level of water quality and terrain favorable to expansion. Hopeville Pond (Griswold), Indian Well (Shelton), Lake Waramaug (Kent),



Quaddick Pond (Thompson), and Squantz Pond (New Fairfield) State Parks offer limited opportunity for expansion. Expansion of these existing state park inland swimming areas will not, in itself, satisfy the present deficit of swimming facilities needed to meet present and projected instant demand. For example, Mt. Tom is a small pond.

4. Additional inland swimming areas should be developed on inland lakes upon state acquisition of lands. Areas having potential for development of public natural swimming areas include Gardner Lake in Salem (especially prime site), Mashapaug Lake in Union, Mansfield Hollow Reservoir in Mansfield, Beach Pond in Voluntown, Twin Lakes in Salisbury, and Candlewood Lake in western Connecticut.

5. Improvement and modernization of obsolete and/or deteriorating inland facilities should be carried out to permit their continued use and to improve the present marginal quality of the recreational facility. Such measures may include greater protection of the watershed supplying the park, use of ground instead of surface water in combination with filtration equipment, and replacement of inadequate facilities.

6. Development of Olympic size pools in urban regions such as the Capital Region where no natural or semi-natural swimming potentials exist. A prime site in this region is at Gay City State Park in Hebron. In addition, the State should encourage and support municipal pool development, including (a) the development of artificial Olympic size pools in seasonal use, open space park settings, and year-round indoor/outdoor recreational structures serving family, individual, and school group use, and (b) inclusion of swimming within the physical education and athletic programs of public schools.

7. Coordination with and, where applicable, pass-thru of grants-in-aid to other public bodies such as the Hartford area Metropolitan District Commission, and private bodies to foster the development and operation of swimming facilities open to the general public.

8. Acquisition by State and local governments of water bodies and surrounding land areas which are declared to be surplus water company lands by appropriate government agencies. Smaller impoundments whose water supply functions have terminated can provide quality swimming opportunities for the future.

9. Reevaluation of state policy on the utilization of municipal water supply reservoirs for recreational activities when mandated Federal Drinking Water Quality Act filtration systems are established.

10. Section 19-13-B33a of the State of Connecticut Public Health Code should be reevaluated and updated to accommodate large public, Olympic size pools, saltwater pools, variable depth pools, and slope-sided pools. Existing outdated and inadequate regulations and policies dealing with these pool designs and their operation prevent advantageous use of these beneficial alternative types of construction, especially in regards to slope-sided pools.

Local Government

1. Acquisition, development and/or expansion of sites offering potential for use as swimming facilities.

2. Utilization of the urban renewal process to provide additional salt and freshwater swimming facilities on Long Island Sound and on appropriate inland water bodies.

3. Pools at public school facilities should be accessible to the

general public for use in the after-school hours.

BOATING

Due to its humid climate, glacial history, and geographic location, Connecticut for its small size possesses an abundant potential for boating on its many lakes and rivers, as well as its more than 250 miles of shoreline on Long Island Sound. Although a highly diversified recreational activity, boating in Connecticut can nevertheless be broken down into the two following major subcategories:

1. Motorized boating, utilizing craft ranging from small outboard-powered craft to large yachts.

The smaller outboard-powered craft are frequently utilized for fishing and often utilize lakes and ponds less than one hundred acres in size. The larger outboard craft used for water-skiing and inboard crafts are generally confined to Long Island Sound, large navigable rivers such as the Connecticut River below Hartford, tidal areas of the lower Housatonic and Thames Rivers, and those inland water bodies over 100 acres in size.

TABLE IV-2
MOTOR BOAT REGISTRATIONS
IN CONNECTICUT, 1974-1977^a

<u>Year</u>	<u>Number of Registered Motor Boats</u>
1977	67,851
1976	68,799
1975	68,627
1974	62,003

^aSource: State of Connecticut, Department of Motor Vehicles

2. Non-motorized boating, consisting largely of canoeing/kayaking and sailing. Canoeing/kayaking is a fast-growing sport largely dependent on seasonal high water on a number of small to moderately sized streams offering either a "white water" or a pleasant flat-water experience. Sailing, on the other hand, is found in Long Island Sound as well as in some large and small inland water bodies where it must compete with motorized boating.

Because of their varying requirements and clientele, few generalizations can be made for boating as a whole. Instead, each major subtype will be discussed as follows:

Motorized Boating

Demand

Indications of demand for power boating are less than fully discernible, as many surveys combine all boating into one category. Thus, the Tri-State Region survey indicates that nearly 24 percent of Connecticut residents in its sample participated in "Boating."¹ However, power boat registrations in Connecticut are approximately 70,000 and have not increased in the last few years (Table IV-2), contrary to the predictions of the last SCORP.² Thus, families which either own a boat or have access to boating opportunity may total only some 10 to 15 percent of the total population. Using a New York State guideline that approximately one-eighth of the participating public will do so on a "design day" then gives an average peak day instant demand of some 40,000 to 60,000 people or some 10,000 to 15,000 boats.

¹Includes motorized and non-motorized boating.

²This is most likely due to out-of-state registering of boats to avoid property taxes.

Supply

Concentrated on Long Island Sound, this activity utilizes a broad range of facilities, including 164 commercial marinas, 63 private yacht clubs, 32 municipal boating facilities, and a large number of state and public boat launching areas. Aside from the public state launching sites (parking capacity approximately 5,000 cars and attached trailers), available slips and berths total roughly 25,000, of which some 5,000 or about 20 percent are at private clubs. Over three-quarters of the remainder are at commercial marinas, with the rest at municipal facilities for residents (largely in Greenwich and Stamford).

When the supply of motor boating is compared with the apparent demand, it is clear that there are certain deficiencies deserving correction. First of all, a very large share of the total supply is private-commercial or private-restricted in nature, thus catering only to more affluent sectors of the populations. Secondly, the great bulk of the municipal berths are not only restricted to residents but also highly localized in several communities with less than five percent of the aggregate population of the state. Furthermore, inland metropolitan areas as in central and north central Connecticut (the Midstate, Central Connecticut, Central Naugatuck, and Capitol Planning Regions) tend to be "have not areas," with extreme competition for available shoreline access, a growing problem in southwestern Connecticut as well.

Recommended Actions

Prompt action is needed to alleviate these supply deficiencies, especially in providing relatively inexpensive public boating access and in expanding the capacity of private facilities through more efficient handling

and storage of boats. Several major recommended corrective actions include:

1. Implementation of the long-standing DEP policy to purchase a boating access area on every major lake (+100 acres). Significant water bodies currently lacking such access and where such corrective action is recommended are listed in Table IV-3.
2. Implementation of the long-standing DEP policy to purchase a boating access area on every town on the coast or on navigable rivers. Additional recommended areas are listed in Table IV-4.
3. Combining the goals of urban renewal and of environmental protection by concentrating new marina development in urban harbor areas, now often occupied largely by old and decrepit structures. Such areas may include the harbors of such cities as New London, Norwich, Middletown, New Haven, Bridgeport, and Norwalk.

Non-Motorized

Demand

Canoeing and kayaking are two forms of non-motorized boating which have grown significantly in the last decade. This activity is now broadening to include "tube floating." Canoeing is a natural recreational activity for this state because of numerous streams. Nevertheless, the generally small size of most of these streams and their limited volume of flow following the spring freshet pose serious limitations. Furthermore, serious historic pollution in many larger streams has sharply reduced their aesthetic appeal to the canoeer.

Canoeing in Connecticut has tended to be a highly seasonal sport, with many streams listed in the Appalachian Mountain Club's New England Canoeing Guide described as being usable only in periods of high water. This includes

TABLE IV-3
 MAJOR CONNECTICUT WATER BODIES
 LACKING PUBLIC OWNED ACCESS^a

Aspinook Pond	(Lisbon, Griswold)
Candlewood Lake	A second access needed.
Crystal Pond	(Eastford)
Halls Pond	(Eastford)
Moosup Pond	(Plainfield)
Oxoboxo Lake	(Montville)
Lake Pocotopaug	(East Hampton)
Lake Quassapaug	(Middlebury)
Spectacle Ponds, North & South	(Kent)
Twin Lakes, East & West	(Salisbury)
Wappaquasset Pond	(Woodstock)
Williams Pond	(Lebanon)
Wonanpakook Lake	(Salisbury)

^aThis listing does not include a number of large water bodies which are privately owned and where acquisition of shore property alone will not allow use of the waterbody itself.

TABLE IV-4
RECOMMENDED ADDITIONAL PUBLIC BOAT LAUNCHING SITES

Mystic	Acquisition and development
Groton (Thames River)	Development
Montville (Thames River)	Development
Chester-Lyme Area (Connecticut River)	3 areas needed: acquire & develop
East Hampton (Connecticut River)	Acquisition and development
Portland (Connecticut River)	Development
Rocky Hill (Connecticut River)	Acquisition and development
Glastonbury (Connecticut River)	Acquisition and development
Clinton	Acquisition and development
Milford-West Haven	Acquisition and development
Bridgeport	Development
Westport	Development
Fairfield County	Several new areas needed: acquire and develop

the spring, after major rain storms, or upon release of water from upstream impoundments. Furthermore, the challenge-seeking local participant will tend to seek out a certain quality of recreational experience or degree of canoeing difficulty wherever it may be found in southern New England. Hence, inter-state flows of users are quite typical.

It is impossible to ascertain the locally-generated demand for canoeing, although the Heritage Conservation and Recreation Service's recent National Telephone Survey indicates a New England rate of participation in canoeing slightly above the national level. Recent estimates place total annual participation at 8.5 percent of the state's population with the serious canoers probably numbering no more than a few thousand.

Nevertheless, those streams with good quality water and with sufficient flow to allow warm season canoeing are under increasingly heavy pressure of use, from patrons of outfitting companies, special wilderness schools or "Outward Bound" groups, and the ordinary canoe-owning citizen. This is especially true on the upper Housatonic and upper Farmington.

Supply

Four prime white water canoeing streams include the upper Housatonic, the Bantam-Shepaug, the upper Farmington, and the Salmon Rivers. Other recognized streams include the middle Farmington, the Willimantic-Shetucket, and the Scantic. In addition, a remarkable improvement in water quality should foster greatly increased usage of streams such as the Naugatuck (especially above Waterbury), the Quinnipiac, and the Quinebaug Rivers.

Recommended Actions

With the increasing popularity of canoeing, a growing canoer-fisherman conflict is appearing, as the fishermen feel the steady passage of often

noisy canoers scare the fish and thereby hurt their own recreational experience. Unfortunately, the few prime canoeing streams often tend to comprise a major element of the also limited supply of good public coldwater stream fisheries.

To correct these problems and to help handle the expected increase in canoeing participation, a number of actions must be undertaken including:

1. Completion of the ongoing water pollution control program to provide canoeing on all streams with the hydrologic capability to support it.
2. Acquisition of water rights and/or agreements with owners of water rights, as on the Farmington and Housatonic Rivers, in an attempt to provide either minimum or periodic flows which will support canoeing.
3. Acquisition of stream banks to provide public access and protection of scenic vistas as well as development of river access points including parking lots and support facilities where appropriate.
4. Regulation of new impoundments on remaining stretches of free-flowing rivers of recognized canoeing significance.

WILDLIFE SPORTS

The wildlife sports system includes the age-old pursuits of hunting and fishing and their related offshoots. Despite our very urbanized and mechanized society, we still see the strong seasonal desire on the part of many people to engage in hunting and fishing. Sportsmen have been among our earliest conservationists and continue to be active supporters of efforts to preserve crucial habitats for both game and non-game wildlife species.

FISHING

For hundreds of years Connecticut residents have engaged in fishing

as a source of food and sport and, in Long Island Sound, as a valuable industry producing goods for trading purposes. Thanks to its humid climate and coastal location, Connecticut offers a substantial potential for fishing, a potential whose variety is enhanced by the presence of both coldwater and warmwater fisheries. Thus, its inland waters offer the fisherman a variety of warmwater, coldwater and anadromous species--rainbow trout, brook trout, brown trout, large and smallmouth bass, calico bass, kokanee salmon, white and yellow perch, chain pickerel, northern pike and shad. Also in and along Long Island Sound, striped bass, bluefish, lobster, winter flounder, summer flounder, Atlantic mackerel, tautog, and scaup are additional desirable species of available saltwater sport fish.

Demand

Estimates of demand for fishing opportunities must take into consideration both the number of fishermen and their fishing preferences. This second factor makes quantitative estimates of demand difficult because it is necessary to account for preferences between fly and bait fishing, trolling and still fishing, saltwater and freshwater fishing, coldwater and warmwater fishing. For some fishermen these may be interchangeable choices, but for others no substitute for their preference is acceptable. For example, there is a strong preference in Connecticut for coldwater stream trout fishing and this results in very intensive pressure on the limited available resource, especially during the first few weeks of the season. However, fall and winter trout fishing is becoming much more popular, with the Farmington River supporting an intensive fishery for nearly seven months, and trout fishing in lakes intensive for four months of the year. On the other hand, warmwater fishing opportunities, in general, experience comparatively light

pressure and are, in general, somewhat underutilized.

The best concrete indicator of participation or at least of trends in participation in fishing comes from license sales, as seen in the table below.

TABLE IV-5
TRENDS IN CONNECTICUT FISHING LICENSE SALES

Year	Fishing & Combination <u>Hunting-Fishing Licenses</u>
1955	108,000
1960	110,000
1965	115,000
1970	163,581
1975	220,152
1976	214,855
1977	215,582

Although sales of licenses remained remarkably steady until the mid-1960's, a large increase in participation began to occur at that time and is continuing. Whether because of heightened interest in fishing as a sport or because of the increased cost of non-resident licenses in surrounding states, this table nevertheless indicates a near doubling of resident demand to be met with in-state resources.¹

Nevertheless, the 220,000 licensed fishermen in Connecticut (7 percent

¹Although many Connecticut fishermen still apparently do at least part of their fishing out-of-state, very few non-residents buy fishing licenses in this state.

of the total population) do not represent the total number of fishermen because licenses are not required for fishing in the marine areas, nor are licenses needed by persons under sixteen years or sixty-five years and over, the blind, the mentally retarded, or by persons fishing on their own property. Considering these factors, state authorities conservatively estimate the total number of fishermen as at least 450,000 or about 15 percent of the population.¹

An interesting sidelight relates to lobster fishing which has also increased greatly in the last 15 years and has become more recreational as opposed to purely commercial in nature. Thus, during the period 1958-1976, the total number of licensed lobstermen rose from 316 to 2,821 and the catch increased from 204,000 pounds to over 620,000. The proportion of lobstermen considered commercial dropped from 56 percent to 21 percent during this period, indicating the growth of the "weekend" or recreational lobsterman. Nevertheless, the commercial sector had over 90 percent of the total catch.

No accurate empirical estimates of instant fishing demand exist, although DEP staff have developed their own standards. Thus, it is estimated that the average summer weekend day will see roughly 60,000 to 70,000 anglers with about 60 percent in the marine area and 40 percent on inland waters. Also, opening day of trout season seems to attract approximately 100,000 anglers, with at least 20,000 participating on normal spring weekend days.

Supply

Although fishing traditionally has been done in an informal manner, often involving casual trespass on private property, the pressure of population upon the resource and the increasing value of the resource itself

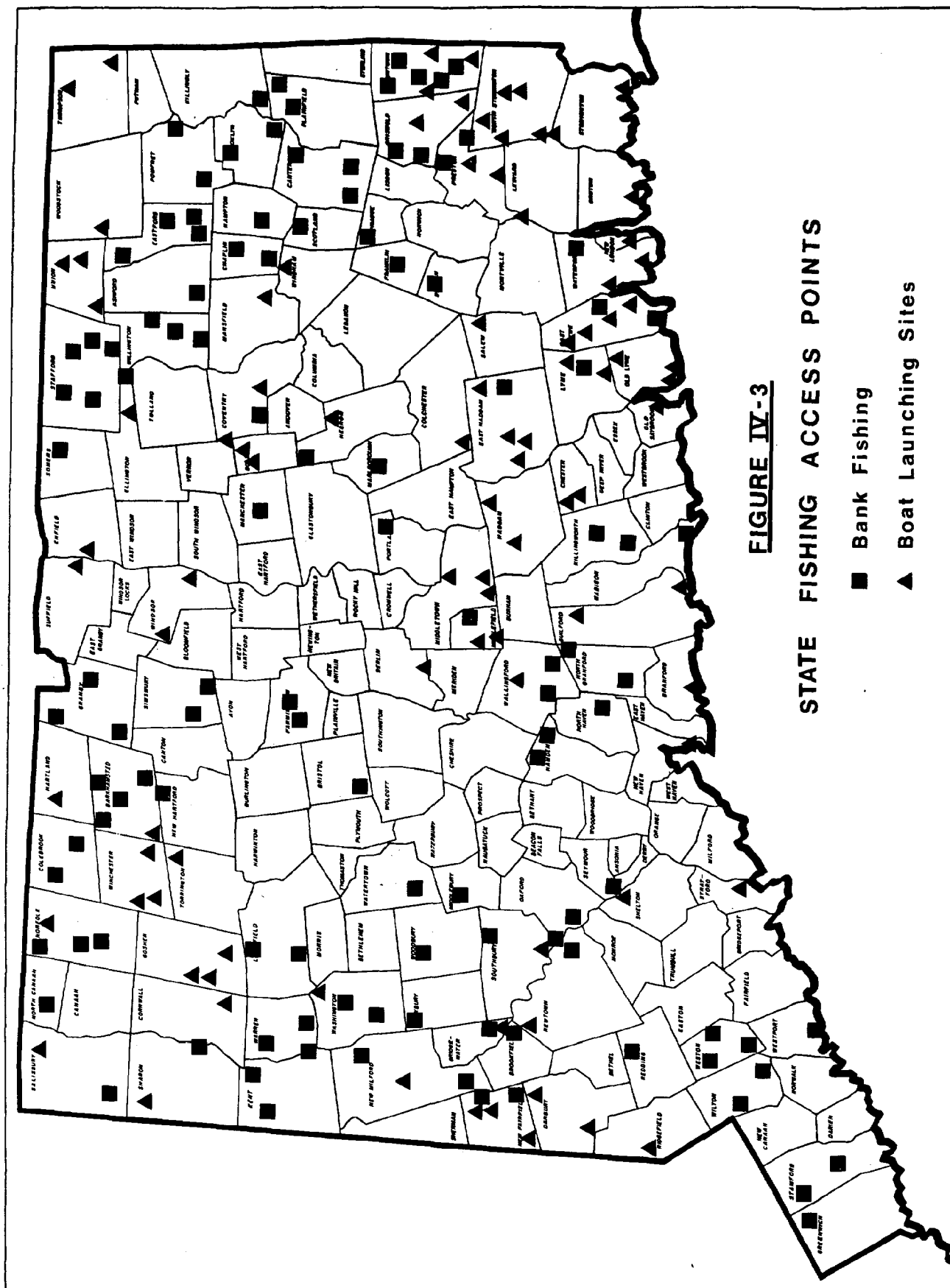
¹Interestingly, other Northeastern surveys (New York, Massachusetts, Tri-State Region) all indicate a roughly 20% participation rate (23.7% for the Connecticut portion of the Tri-State Region), implying that the actual number of Connecticut residents who fish may well exceed 600,000.

have tended to cause a distinction between publicly owned or leased lands and waters, open to the public, and privately owned property often posted against public use. Therefore, this analysis will emphasize those areas which are legally open to the public. Not surprisingly, the state plays the major role in providing public access sites for both bank and boat fishing on inland waters, many of which are on lands owned and managed by the state. Within these holdings are 42 miles of streams and approximately 70 lakes or ponds. In addition, the state has acquired permanent fishing easements to 10 streams totaling 134 miles in length, and short-term leases on 41 streams totaling 120 miles. Ninety-nine boat launching sites are provided for fishing access on inland lakes, rivers, and Long Island Sound, as seen in Figure IV-3.

Other fishing opportunities are provided at many municipal parks and open space properties, commercial campgrounds and resorts, fish and game clubs, and a few commercial trout ponds. Although the state provides 11 boat launching sites on the Sound, access to fishing in the marine sector has largely been a function of private enterprise, supplemented to some extent by town docks, many available to residents only. Thus, there are 44 commercial boat liveries, 38 charter boat services and 10 party boats presently in operation to serve saltwater fishermen.

Needs and Recommended Actions

Because of the difficulty of assigning an instant fishing use capacity for a stretch of stream or for a lake, it is impossible to undertake a reasonably precise supply-demand assessment. Therefore, adequacy is best assessed by identifying areas experiencing greatest pressure of use. These pressures are most acute on coldwater trout streams, especially close to the state's



metropolitan areas, and at certain public boat launching sites, particularly those in coastal locations and/or certain popular water bodies offering a coldwater fishery. On the other hand, many warmwater water bodies and streams seem underfished. A prime example is the Connecticut River which, except for the popular seasonal shad fishery, is largely underfished. The situation with Long Island Sound is less clear, with the major problem seeming to be the insufficient supply both of shore and boat launching access for the general public. This is especially true for the Southwestern, Greater Bridgeport, and South Central Planning Regions.

A number of overlapping actions to correct existing and anticipated limitations in fishing opportunity are needed. These include:

1. Providing more public access to streams and water bodies offering a coldwater fishery. This is particularly urgent in view of the fact that the size of the coldwater fishery in Connecticut is: (a) limited in extent and under heavy use pressure and (b) that much of the present public opportunity consists of short-term leases. Special emphasis should be placed on appropriate stretches of larger streams such as the Housatonic and Farmington which can handle a considerable volume of use.
2. Providing additional public fishing access to Long Island Sound, both in terms of boat launching and shore fishing access. Corrective measures should include both acquisition and development to make available boat launching ramps (see specific recommendations for new Sound facilities under "Boating" above) and piers and groins to serve the shore fisherman.
3. Expanding anadromous fishery potential (including the Atlantic salmon, shad, sea-run brown trout) on suitable streams through removal of obsolete and unused dams and fishway construction combined, of course, with

stream access acquisition to ensure adequate public access. A major recent improvement was the 1975 completion of the fishway at the Rainbow Dam in Windsor which opened up a large stretch of the Farmington River. Nevertheless, additional improvements are needed where deemed fiscally and biologically feasible, especially in the following cases: (a) the two former Collins Company dams on the Farmington River in Collinsville, (b) the Leesville Dam on the lower Salmon River, and (c) the Greenville, tunnel, and Aspinook dams on the Quinebaug River.

4. Providing additional public access to other rivers with game fish potential which have been or are being cleaned up through Connecticut's Clean Water Program. Thanks to this major public investment program, many such streams including the Connecticut, Naugatuck, and Quinnipiac Rivers increasingly will be able to offer considerable fishing opportunity in urbanized parts of the state.

5. Providing additional public access to other warmwater lakes and ponds with significant fisheries potential.

HUNTING

Demand

As a small, rather densely populated state, Connecticut lacks the space and wild character necessary to provide a broad range of hunting opportunity. Yet its wooded, diversified, and well-watered landbase does provide a substantial volume of hunting potential for its residents. Hunting in Connecticut is of three basic types: gamebird hunting utilizing open farmland basically on a "put-and-take" basis, waterfowl hunting utilizing inland and coastal wetlands and water bodies, and forest game hunting. Available game includes pheasant, quail, grouse, woodcock, duck, Canada goose, gray squirrel,

rabbit, fox, raccoon, and deer, with an effort presently underway to restore the wild turkey.

Although most of these species have long been available for public hunting, deer hunting has until recently been available only for private landowners, their friends and lessees of private property. Now, however, deer hunting is allowed on both private and State lands on a permit basis with a shotgun, archery or muzzleloader permit, opening up a new dimension in Connecticut hunting. More than 20,000 persons deer hunt in Connecticut and over 13,445 paid deer permits were issued in 1977.

Connecticut, as part of the urbanized Boston-Washington corridor, has tended to have a lower hunting participation rate in comparison with more rural areas that have traditionally relied on hunting and fishing as the basis of outdoor recreation. Because of its urbanized character, Connecticut has also tended to export a great deal of its resident demand for hunting, especially for deer, turkey and other big game species.

Surveys conducted during the development of new SCORP's for New York State and Massachusetts indicate a likely hunting participation rate of 8.1 percent to 3.8 percent respectively, with Connecticut's rate subjectively thought to fall within this range although probably closer to the Bay State's. State hunting license data seem to support this assumption. Presently about 117,000 hunting and combination hunting-fishing licenses are issued in Connecticut. This is substantially less than the actual number of hunters because persons between the ages of 12 and 16 years do not need a license nor do people hunting on their own property. As the 1970 National Survey of Fishing and Hunting found that 21.4 percent of the hunters in its sample were unlicensed, the actual number of Connecticut hunters may approach 143,000 or

about 4.6 percent of the population.

As seen in the table below, license sales in Connecticut have increased sharply in recent years. One reason undoubtedly involves the large increase in license fees in northern New England states, causing more Connecticut hunters to do their hunting at home.

TABLE IV-6
TRENDS IN SALES OF HUNTING & COMBINATION HUNTING AND FISHING
LICENSES IN CONNECTICUT

<u>Year</u>	<u>Number Licenses Sold</u>
1967	68,335
1968	76,699
1969	79,707
1970	84,608
1971	84,958
1972	86,885
1973	95,383
1974	103,234
1975	109,551
1976	103,685
1977	103,148

Converting these annual participation rates to daily participation is also necessary. It is estimated that opening day of the hunting season brings out 50,000 to 60,000 hunters, with a normal season weekend day demand of about 20,000 to 25,000.

Sporting field dog trials constitute a growing related activity which evolved from hunting. Nearly 150 field trials are held annually, involving 10,000 people and up to 4,000 dogs. The majority of these

take place on private lands. However, there are also four state owned areas including the well-known Flaherty Field Trial area on which retriever, hound, and bird dog trials are regularly held throughout the year, with the bulk taking place in the spring and fall.

Supply

Lands available for public hunting consist basically of selected State owned and leased areas as seen in Figure IV-4 following. Available State properties include most of the State forests, an area of approximately 122,215 acres.

There are 26 State-owned wildlife management and hunting areas totalling 10,761 acres. In addition, the State has a program of short-term leasing of hunting areas and a cooperative program whereby hunting rights on tracts of privately owned property are held by agreement for an indefinite period, and consideration for the landowner is provided in extra patrol service, protection of crops and limitation of the number of hunters using the area at any given time. At present 19,391 acres of hunting land are held by paid lease and 60,048 acres by short-term agreement, a total of less than 80,000 acres versus the 97,000 acres available in 1973.

Other more restricted opportunities for hunting are provided by private sportsmen's clubs, commercial shooting preserves, and by farmers who grant sportsmen permission independently to hunt their land. More than 100 sportsmen's clubs own or lease private reserves, and six commercial shooting preserves offer pheasant, mallard duck, quail and partridge. Commercial shooting preserves are privately owned and operated areas on which pen-raised game are released for hunting. Fees are charged for use of the preserve on a per bird harvested basis. A shooting preserve may have an extended

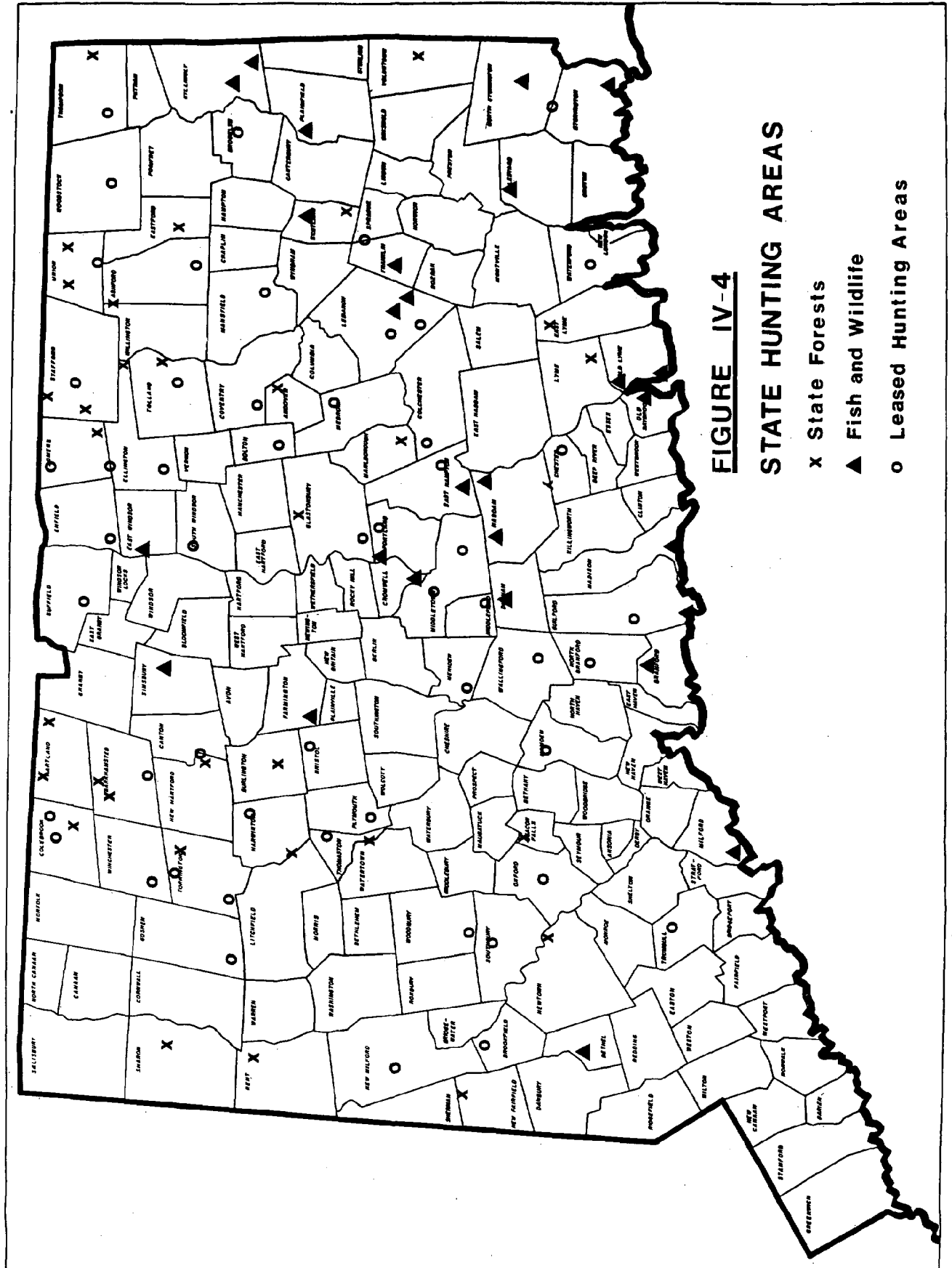
season, longer than regular statewide seasons, and no bag limit on released game. They are operated in accordance with state and local laws, rules and regulations.

The supply of public hunting opportunity in Connecticut is not a secure one, being heavily reliant upon use of privately owned property. Additionally, a number of trends are having a serious negative impact. The most serious of these is the pressure of land development, and the diffusion of people via urban sprawl throughout the state. The resulting effect on hunting has been three-fold: (1) the destruction and degradation of wildlife habitat through the large scale urbanization of land, often farmland, of particular value as wildlife habitat, (2) the prohibition of hunting on even larger acreages of land surrounding the newly-developed areas, and (3) a decreasing willingness of urban-oriented landowners to lease land to the state (leased land has been decreasing at a rate of five to seven percent annually).

Furthermore, on the farms that remain, some agricultural practices have seriously curtailed the food supply for wildlife, and the recent tendency to remove thickets, hedge and fence rows, removes food and cover, and exposes the animals to the attack of predators. Farms which have gone out of production are reverting to woodland, creating additional losses of suitable small game habitat. In addition, destruction of tidal and inland marshlands over the years has resulted in a serious loss of habitat for migrating waterfowl along the Atlantic flyway. Hopefully, the wetland and regulatory programs established during the last decade will arrest historic trends.

Needs

Using a conservative standard of about twenty acres per hunter for pheasant and small game hunting, the minimum area required to accommodate



the projected level of hunting activity will be 200,000 to 300,000 acres. At the present, combined State and private State-leased holdings do not approach this figure. A continued decline in the availability of privately owned agricultural land for leasing, coupled with continuation of the rise in the number of hunters, will result in an increasingly unfavorable ratio between supply and demand. Furthermore, the bulk of the existing State lands is forestland, not suitable as habitat for pheasant or waterfowl, the most popular game species. Therefore, the present severe deficiency of opportunity for both types of hunting will steadily worsen, while the less popular forest small game hunting opportunities available in the State forests remain underutilized.

For hunting, the urbanized regions of the State, including the South-Western, Greater Bridgeport, Valley, South Central, Central Naugatuck, and Capitol Planning Regions lack the land base with which to meet regionally generated demand. These regions are exporters of hunters to the more rural areas of the Northwestern, Litchfield Hills, Windham, Northeastern, and Southeastern Regions.

In other states this trend toward imbalance in the supply and demand relationship for public hunting has resulted in a tendency of landowners to sell hunting privileges. Such a movement here could drive public hunting out of economic reach through the increased competition for diminishing hunting opportunities. In Connecticut, hunting could become a sport available only to the affluent, to the exclusion of the great many sportsmen of moderate means.

Recommended Actions

Although some of the resident-generated demand for hunting can be met

on private property or at private clubs and commercial preserves, in the end, the bulk of the burden for maintaining a diversified wildlife resource and for preserving public hunting opportunity must fall upon the state. To accomplish this, a number of actions are recommended including:

1. State policies which will encourage the preservation of key habitat types such as coastal and inland wetlands, floodplains, and agricultural lands. Although much of this can be accomplished through existing regulatory programs, a continuing state program to preserve agricultural land is urgently needed, to ensure that essential wildlife habitat is maintained, as well as for food production and hunting purposes. Also, the state should more effectively manage the small amount of agricultural lands already in its ownership to serve a multiple-use function.

2. State acquisition action to make areas of prime wildlife habitat available to the public. Top priority must be given to expanding existing holdings and acquiring agricultural lands which are of sufficient size (100 acres minimum) for wildlife management purposes. Other areas which must be acquired include flood plains, especially of the major rivers such as the Connecticut, and lands in the eastern and western uplands of mixed farm-forest character to serve as a buffer to wetland holdings. Related to preservation of agricultural land as discussed in (1) above, consideration also should be given to the buying of agricultural land and leasing it back to farmers on the condition that wildlife habitat be maintained and that it be available for public hunting.

3. State acquisition and habitat improvement action to maintain the diversity of the wildlife resources of Connecticut and to restore certain game species to the state. Particular attention should be given to acquiring and managing several large tracts of land necessary to provide at least

a minimal habitat for wide ranging species such as the wild turkey and the black bear.

4. State acquisition action to immediately acquire identified critical wildlife habitat areas such as traditional deer wintering areas, osprey or eagle nesting sites and heron rookeries, even if it requires the use of condemnation rights when all other alternatives have failed.

SHOOTING SPORTS

As indicated, Connecticut has over 100,000 licensed hunters. In addition, there are several thousand individuals who also utilize firearms in the recreational pursuits of skeet, trap, rifle and pistol shooting, many of whom do not participate in hunting. Competitive shooting sports are supported by private club facilities. While individuals are able to participate by joining such facilities, the majority are occasional shooters or those interested in practice and sighting in hunting weapons who must rely upon private lands. This use of private lands can present landowner conflicts and potential safety problems. Other firearms activities also require support facilities. Most notable are Olympic, international and national shooting teams, and hunter safety education programs.

At present there are no facilities in the State adequate for big-bore rifle and international rifle or pistol practice. Conventional pistol facilities are limited and are declining. Suitable sites for military, police training, sighting in, and patterning facilities utilized by sportsmen, are available to only those who belong to clubs. There is a pressing need for a permanent State facility developed to serve these special needs which will not be eliminated by future residential or commercial development.

The development of a State facility for large-bore rifle, pistol shooting and firearms sports will not be totally sufficient in providing for shooting activities. To insure public safety and limit landowner conflicts, the State should establish in each region one or more public shooting ranges which may serve as a sighting-in and patterning facility. These facilities might be located on existing State forest and reserve lands where noise and interference with other recreational activities may be minimized.

CAMPING

Although traditional camping has retained a strong element of "roughing it" in a wild and natural setting, the post World War II era has seen an explosion of camping on the part of those who wish to camp while retaining some modern conveniences. Much of this new wave of campers may represent those who simply want a vacation or weekend which will be less expensive than that possible by the cottage or motel option. Nevertheless, most seem to want a social, comfortable camping experience where they can continue to live much the same as at home; the type of experience which the typical commercial campground is apt to offer.

A key issue in Connecticut camping has been to try to separate the proper roles of the public and the private sectors. Because camping is a relatively high capital investment per unit of capacity, and because government has many recreational responsibilities to meet, the traditional State policy has been to provide a basic, nature-oriented camping experience with few, if any, frills and one which will not compete with the private sector. State campgrounds are located and developed adjoining significant natural resources in order to accommodate visitors to those sites. On the

other hand, it has been felt that private entrepreneurs should provide camping opportunity for those people who wish many of the services, activities, and comforts of an urban society.

Demand

As with other activities, accurate estimation of demand depends upon certain data which is not presently available in needed form. This is particularly true of camping, which is a weekend or vacation outing as opposed to the day trip outing most typical of outdoor recreation in Connecticut. Therefore, an accurate estimate of in and out-of-state flows of camping demand are needed. For example, a mid-1960's survey declared that over 80 percent of Connecticut's residents who took a vacation did so out-of-state, implying a large outflow of vacationing campers to other locations, especially in the Northeast. Fortunately, a recent DEP State Park Origin and Destination Survey sheds some light on out-of-state use of Connecticut campgrounds and on Connecticut resident use of State campgrounds.¹ In the former case, non-resident use of Connecticut facilities varies from less than 10 percent up to 29 percent and is concentrated in the western portion of the State. Also, Kettletown State Park in Southbury is unique in attracting a significant number of non-residents (23 percent) who are largely transient overnight campers passing through the state along nearby Interstate 84.

With regard to the travel patterns of Connecticut resident campers, the same survey indicated that many campers seek out park destinations no more than an hour or even a half hour's drive from home. More specifically, an average of 52 percent of the users of the sampled parks were state

¹Department of Environmental Protection, State of Connecticut. State Park Origin and Destination Survey. Unpublished data, 1976.

residents travelling less than 20 miles from home. This finding regarding the recreation travel parochialism of many residents is supported by a similar New York State study. In that state, despite the much larger size of the state and greater physical separation of population centers from "resource magnet" areas, 80 percent of resident campers travelled no more than 2 hours and 63 percent no more than an hour and a half to the facility used.

From a statistical standpoint, several studies seem to confirm the fact that roughly 10-12 percent or 310,000-375,000 Connecticut residents engage in camping. Equating this to instant average peak day use, using New York State methodology, it seems likely that instant demand is a minimum of two percent of the state's population or over 60,000; a figure which will rise to approximately 75,000 minimum by the end of the century.

Supply

Because of the boom in camping, the available supply of facilities has grown substantially in recent years. Therefore, while the number of State-operated campsites has remained relatively static (1,400 in 1977 at 16 facilities), privately owned campsites have increased dramatically from 4,734 in 1973 to 6,326 in 1977. This growth is also clear in the rise in number of facilities from 25 in 1967 to 42 in 1973 to 48 at present. Most of these are found in rural eastern Connecticut where they are less likely to be prohibited by zoning regulations and where they may indeed be welcomed as a boost to the local economy. Thus, 38 private campgrounds containing 78 percent of the total number of private campsites, are located in this portion of the state, with roughly 16 percent located in northwestern Connecticut and the remainder in the "Green Triangle" between Greater New Haven and the Connecticut River.

In total terms, therefore, Connecticut presently contains 7,766 campsites, over 80 percent of which are privately operated. Assuming an average capacity of four people per campsite, some 31,000 people can be accommodated at a given time, of which capacity slightly more than 25,000 will be private sector.

Needs

When supply and demand are compared, it is also clear that demand far exceeds local facilities, even if one assumes that in-state campsites are utilized at least 90 percent by in-state residents. Indeed, it may be accurate to state that the current supply satisfies only 50 percent of the current demand and will meet only 40 percent by 2000 A.D. These conclusions seem corroborated by the three following subjective indicators: (1) private investors continue to enter the campground business, an unlikely move if the market was at or near the saturation point, (2) respondents to a recent DEP Public Attitudes and Preferences Survey (Appendix I) feel that camping is one of the fastest growing sports, and (3) similar survey respondents expressed noteworthy concerns over the "inadequacy" of existing State camping facilities.

Recommended Actions

Because of operational and maintenance funding constraints and other recreational investment priorities, state government cannot propose to expand its current supply of campsites greatly. Indeed, its main role necessarily must be to provide the basic, nature-oriented camping experience. In doing this, capital investment moneys must go to rehabilitation of existing facilities as well as to construction of a number of new campground areas in such locations (as at a state park on the ocean or on a major water body)

where a quality, multiple opportunity recreational experience can be provided.

Indirectly, however, state government can play a significant role through promoting the development of additional private campgrounds, through pricing practices which will avoid competition with the private sector, and through coordination with private campground operators to allow state parks to serve as the resource magnet encouraging development of nearby campgrounds. In this way, especially in a period when vacation travel is apt to be curtailed substantially by fuel costs, a larger share of Connecticut's home-generated camping demand could be met within the state.

TRAIL-ORIENTED ACTIVITIES

A great many sports can be grouped in this category insofar as they are at least partially linear or trail-oriented as opposed to being site-oriented. Chief examples in Connecticut include the varied forms of walking (backpacking, hiking, nature and pleasure walks, snowshoeing, etc.), horseback riding, bicycling, skiing (especially in its cross-country variant), snowmobiling, and trailbiking. The current status of each in Connecticut is as follows:

WALKING - HIKING

Walking is an extremely varied activity which ranges from a noontime stroll through the downtown area of a city to the wilderness backpacking trip. In Connecticut, it is probably the intermediate variants which are most common; the nature walk or casual hike which may take one to three hours. In addition, youth groups, such as boy scout troops, and adults often take hikes one day in length. The purpose of these walks is mixed, but the

basis is generally the desire to recreate in a pleasant, nature-oriented environment and to get some exercise in a relaxed, non-stressful manner.

Demand

Because of the rather loosely defined character of this sport, it is impossible to develop reasonably precise estimates of demand. However, the Tri-State survey implies a roughly 20 percent participation rate for Connecticut residents for hiking, nature walks, etc., with "pure" hiking perhaps comprising no more than 30-40 percent of this figure. Therefore, it is likely that a minimum of 600,000 state residents become involved in nature-oriented walking annually. Although conversion of this total to average peak day use involves considerable subjectivity, a peak day use range of 20,000-30,000 people seems a safe and reasonable estimate. As the bulk of such walking takes place on established trails such as the Blue Trails System, this points to an average use density of 40 to 60 people per mile per average peak day (Massachusetts' 1976 SCORP recommends a daily standard of approximately eight per mile for hiking and 45 per mile for pleasure walking). Therefore, the use pressure seems to be exceeding a desirable level, a problem seen especially in increasing evidence of wear and tear on certain popular trails.

Supply

The available resource base for walking is also difficult to quantify as it includes a vast mileage of sidewalks, country roads, and old wood roads which receive a great deal of casual use. Perhaps the best indicator of the available resource is seen in the Blue Trail System, which contains 17 major trails totalling some 375 miles (one of which is Connecticut's 56 mile stretch of the Appalachian Trail). Also, various trail networks within

state parks and private conservation areas, such as the McLean Game Refuge, are available, and bring the system total to approximately 500 miles. This privately developed and maintained network is indeed a major recreational asset to a small and densely populated state such as Connecticut.

Recommended Actions

Future recommendations to be carried out cooperatively by DEP and private trail interests, where appropriate, should include:

1. Maintenance of the existing Blue Trails System, including most specifically, the Appalachian Trail, through acquisition of interests in land and/or through agreements with private landowners.
2. Development and similar protection of new Blue Trails mileage needed to interconnect the existing trail system, to replace missing links of existing Blue Trails, to connect metropolitan areas with regional trail systems, and to provide additional primitive hiking opportunities.
3. Relocation and redesign of portions of Blue Trails to decrease and discourage use of hiking trails by other, incompatible trail uses.

EQUESTRIAN

Demand

As discussed in the 1974 SCORP, Connecticut's horse population has dramatically increased in recent years. Now totalling about 64,000, a figure higher than in the days of subsistence agriculture, Connecticut's horses are utilized almost entirely for show and recreational riding purposes, especially the latter.

Again, estimation of use is difficult. Perhaps as much as eight to 10 percent of the state's population participates in this sport annually, although the bulk of the total usage seems to consist of occasional patronage of private commercial stables. Fifteen such commercial stables offer

access to trail riding. Thus, the scale of instant use on an average peak day is probably no more than 20,000-30,000 people.

Supply

Although the Connecticut Horse Council is a large and influential statewide organization, there is no State horse trails system, as such, at this time. Instead, many local clubs, especially in Fairfield County, (Southwestern and Housatonic Valley Regions), have developed their own trail network on land owned by sympathetic or group member landowners. In addition, there is much casual use of old or abandoned town roads, trails, and abandoned rights-of-way.

Existing activity on State lands consists of unofficial, yet sanctioned, use of trails in a number of State forests plus on two DEP-owned abandoned railroad rights-of-way as seen in Figure IV-5. In addition, there are two official horse camping areas in the Natchaug and Pachaug State Forests.

Assessment of needs is equally difficult, especially because of the largely private and/or informal nature of the activity. Nevertheless, it is clear that few options are open for the rider who does not own a large property or who does not belong to a horse club with its own trail system. Also, there are no long "through trails" available.

Recommended Actions

The Connecticut Horse Council should, in cooperation with the DEP, aim to develop several official equestrian trail networks in the state, utilizing state and other public and quasi-public holdings as the land basis for the network. Such public trail systems are especially needed in the Southeastern Region and the southwestern part of the State where the largest horse populations reside. Similarly, efforts should be undertaken to develop several

through trails connecting regional systems, complete with horse camping facilities where appropriate.

In addition to the need for public horseback trails, there is a great need for a State Equine Center in Connecticut. Such a facility could provide both a variety of trails, as well as a facility to house the many horse shows now held out-of-state. At present, the seven Connecticut State Annual Breed Shows must be held in neighboring state equine facilities. This results in a significant outflow of dollars from the State in the range of one to two hundred thousand dollars per show. Such shows are important participant, as well as spectator events. Currently, there are no show facilities for such user groups such as 4-H, the University of Connecticut College of Agriculture, and the many benefit horse shows for charity. The overall economic impact of such a facility will be studied.

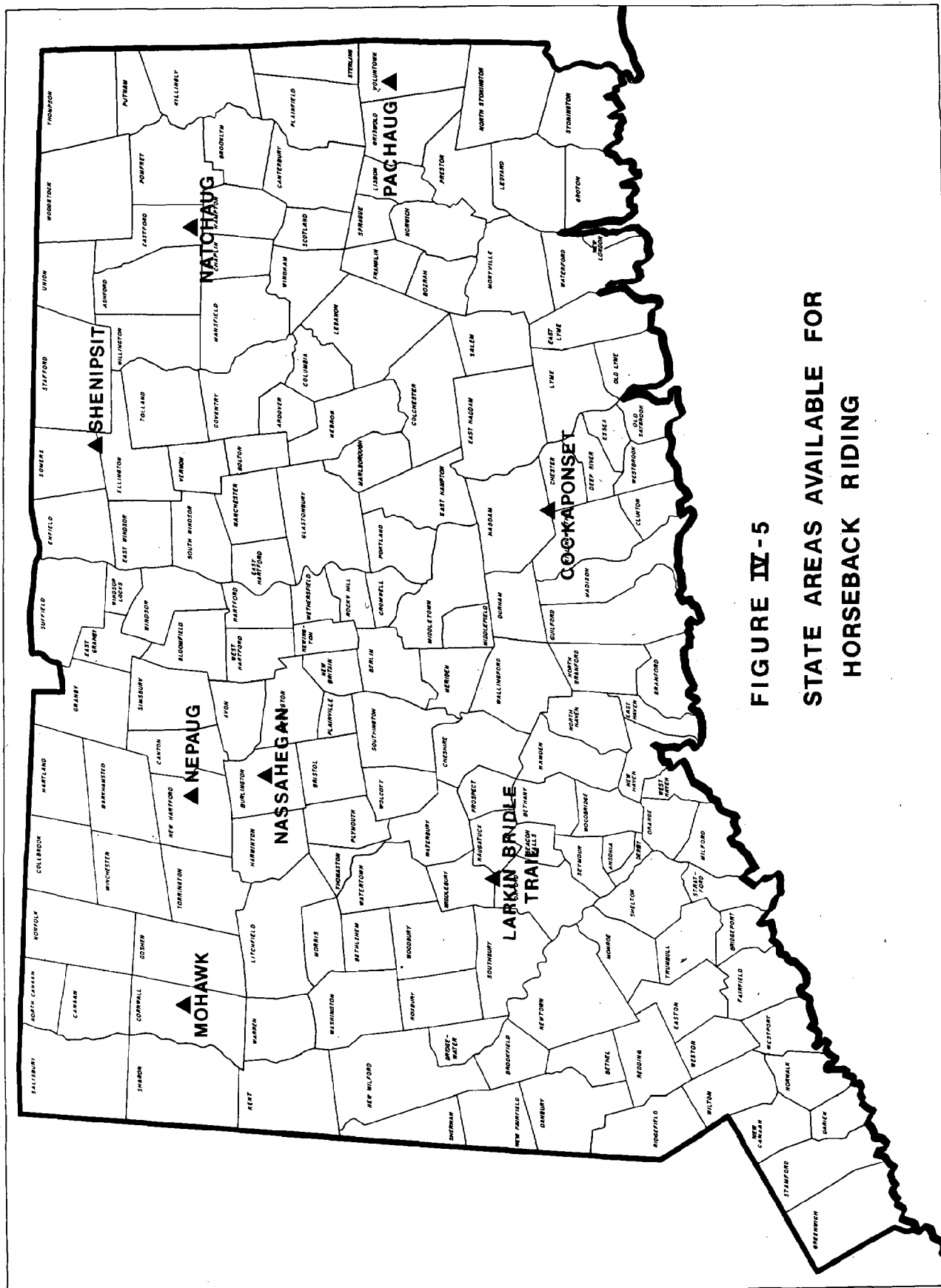
DOWNHILL AND CROSS-COUNTRY SKIING

Demand

Although skiing has long been thought of in terms of site-oriented "downhill" skiing, the more ancient form of cross-country skiing has had a major revival in the 1970's.

Presently, seven percent of Connecticut's residents are involved in downhill skiing, with another two percent in cross-country skiing; the latter expected to rise sharply in the next few years. Utilizing New York State data, this indicates a likely instant average peak day demand for downhill skiing of one percent of the total population, 30,000-40,000 people. Assuming a similar peak day-total participation ratio for cross-country skiing gives a peak instant use, in Connecticut, of approximately 10,000 people.

The lack of natural conditions for skiing results in a large, but presently



unquantifiable, outflow of skiing demand to other New England states in the north. Indeed, at least 60 to 80 percent of the total amount of resident-oriented downhill skiing may well take place out-of-state. Cross-country skiing, on the other hand, seems to be a more localized, informal sport, taking place either locally or within the home region of the participant. However, there is again a tendency to utilize the better natural snow conditions in northwestern Connecticut or in "Snowbelt" areas to the north. Therefore, most commercial areas offering cross-country equipment, instruction, and trails, are located in the northwest region of the State.

Supply

In terms of supply of skiing opportunity, Connecticut has certain assets and liabilities. First of all, it has a climate which is somewhat maritime and is therefore on the snow-rain edge in many winter storms. Secondly, it lacks the rugged topography and great local elevation differentials necessary for high quality alpine or downhill skiing. Thus, its ski facilities tend to be concentrated in snowier, hillier areas, primarily in northwest Connecticut where natural conditions are most favorable (see Figure IV-6 showing distribution of Connecticut's commercial ski areas). Furthermore, snowmaking machines tend to be essential, either to counteract lack of snow or poor snow conditions (crusty, icy snow often typical in Connecticut's customary freeze-and-thaw weather patterns).

Recommended Actions

Traditionally, the demand for downhill skiing has been met by the private sector, although, in one case, on a lease basis utilizing State land (Mohawk State Forest, Cornwall). It is the State's position that private investment should continue to address this need, expanding facilities if

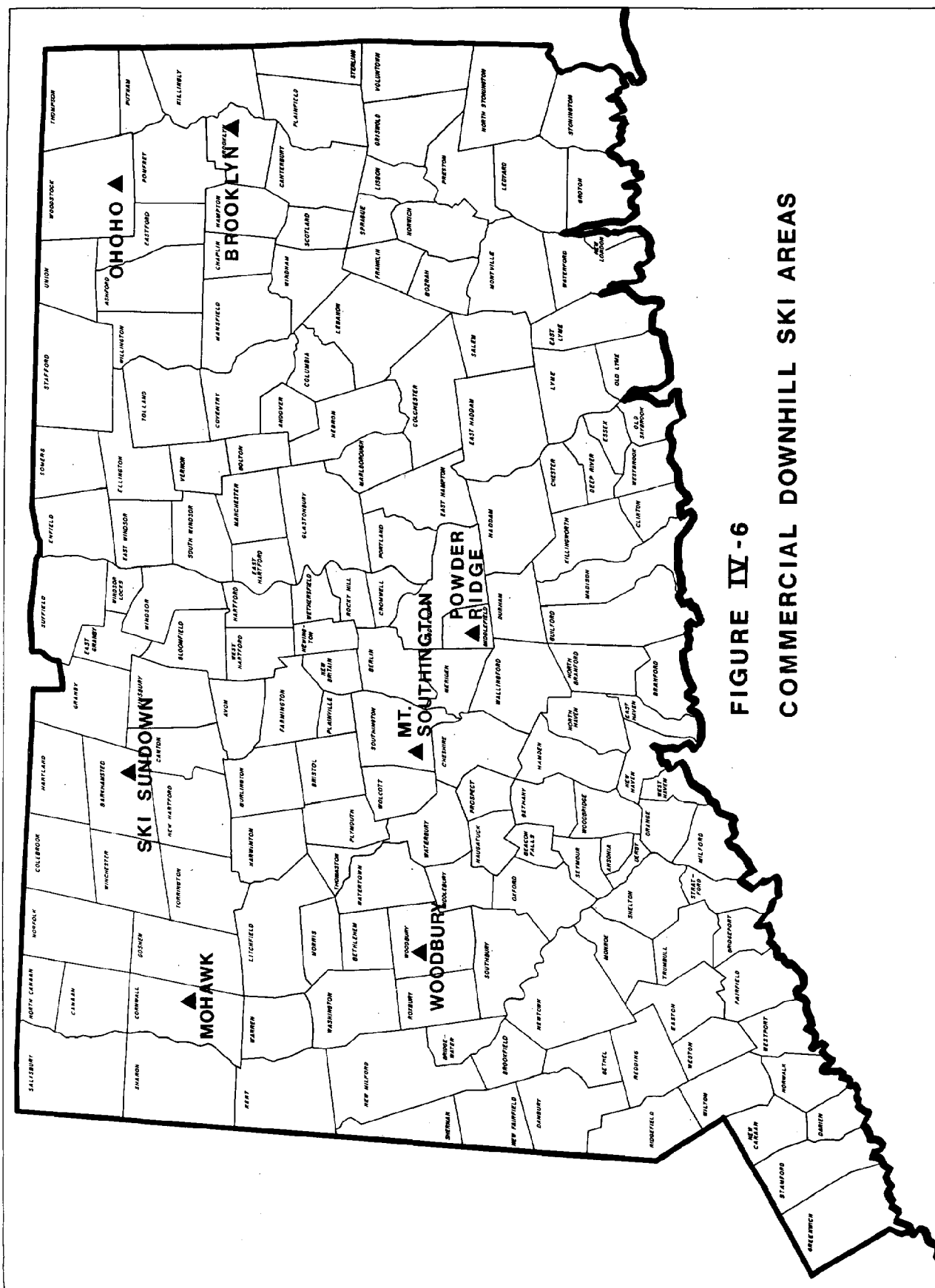
and as demand warrants such action. Therefore, State action should be limited to vacation-travel industry promotions by the Department of Commerce. With regard to cross-country skiing, the state, through DEP, should develop trail networks, probably in large part utilizing existing trails and wood roads used for other purposes during the remainder of the year. Such cross-country trail systems should be located, where possible, in or in proximity to the metropolitan regions of the State where snow conditions are favorable, such as the Capitol, Central Connecticut, and Central Naugatuck Regions.

SNOWMOBILING

Snowmobiling has been a fast-growing sport since the 1950's in all states possessing an annual snow cover. However, because it is motorized and because it has permitted large scale use of areas hitherto isolated in the winter, it has attracted many enemies as well as advocates. One issue in contention is that of noise, a problem which has been addressed in the last six to eight years to the extent that new machines are allowed to emit a noise level of only 78 to 80 dB, a significant improvement from earlier models whose noise output was 85-87 dB. Furthermore, studies of snowmobile impacts on wildlife populations seem to indicate that proper usage (operation on designated trails) should involve no significant detrimental effects.

In addition to these general problems, snowmobiling faces the same basic problem as skiing in Connecticut: a highly variable and undependable cover of snow. Thus, one or more winters offering good potential for recreational use may well be followed by several with little or no snow. Hence, snowmobiling in much of the state must be considered a somewhat marginal activity since only in the Northwest Region is a minimum snow cover of one inch maintained from December through February.¹

¹Brumboch, Joseph, The Climate of Connecticut, State Geological and Natural History Survey of Connecticut. 1965.



Demand

Ten thousand snowmobiles are registered in Connecticut with an estimated 2,500 to 3,000 in use within Connecticut on a peak use day. However, ownership of snowmobiles by Connecticut residents is considerably higher (private estimates indicate possibly 50,000), implying either: (1) use on own private property, where registration is not required, (2) illegal use without registration, or (3) very large scale out-of-state registration by Connecticut residents.

Supply

To meet these needs, DEP has designated eleven snowmobile trails from four to 17 miles long and with a total system length of 95 miles. In addition, many local clubs have developed their own group facilities consisting of a site with a localized network somewhat comparable to the approach used by equestrian groups in Fairfield County. Some of these club facilities are in-state, while others are out-of-state, in the Bershires and elsewhere.

Recommended Actions

The need for additional trails is implied by the large out-of-state registration of these vehicles and has been expressed by the Connecticut Snowmobile Association. It is suggested that development of snowmobile areas within public lands should consist of a core area with an open field and a localized trail network which can handle large volumes of users, including group events. To improve the quality of the recreational experience, trails from 10-25 miles long, which are more isolated to provide a back-country recreational experience, are suggested for development.

There are many limitations which impact upon development of snowmobile

trails: (1) lack of long-term snow cover, especially in the coastal areas; (2) conflicts in trails use with increasingly popular cross-country skiing and snowshoeing; (3) wildlife management requirements for undisturbed deer wintering areas; and (4) the basic difficulties of population density and urban sprawl. Snowmobile trails, as all recreational services, require supervision, including operation and maintenance, adding to budgetary requirements of the Department. Within these limitations, planning attention should be devoted to increasing the length of trails and selection of one or two additional sites for future development in areas receiving sufficient snow and which will not conflict with other recreational and management objectives.

TRAILBIKE RIDING

Demand

Another motorized activity increasingly found in Connecticut is trailbike riding. This activity is also rather controversial because of noise impacts and improper use of non-motorized activity trails. Increasingly, these public relation problems are being addressed by improved vehicle design (noise levels on new machines are required to be less than 82 dB at a distance of 50 feet).

Because of the overlap between trailbiking and motorcycling, it is difficult to estimate the volume of usage. The best indicator is that there are approximately 7,500 trailbikes plus 20,000 combination road and trailbikes in Connecticut. Presently, 1,000 state residents belong to the New England Trailriders Association (NETRA), which has an active Connecticut Chapter. NETRA spokesmen estimate peak day bike use to be in the range of 3,000 to 3,500 at this time; the best indication of instant demand available.

Supply

Trailbikers utilize a variety of wood roads, trails, and other rights-

of-way, sometimes with permission and often without. In recent years, in the face of increasing competition between land uses, competition between recreational uses, and the loss of areas formerly used informally without permission, trailbike interests have had to begin to carve out their own legitimate sphere of activity. The result has been the development of three major trail networks in eastern Connecticut which are partially on DEP lands (60.4 miles-Pachaug State Forest, 17.2 miles-Shenipsit State Forest, 11.5 miles-Meshomasic State Forest). Also, a large trail mileage in western Connecticut has been developed on private property with landowner permission.

Recommended Actions

Regarding further development of trails on public lands, trailbikers should work with DEP to plan the development of facilities where they will not conflict with other recreational activities and management goals. There are two basic philosophies for accommodating these recreational needs. The first involves development of a core facility with a localized trail network as might be located in a flood control dry reservoir area. The second approach, which is presently followed in the New England States, is to disburse riders over longer routes which traverse a narrower band of land. In reality, the growth of mini-bike usage and trail ridership will require some combination of these two approaches.

BICYCLING

Demand

In the last ten years, the sport of bicycling has exploded to become one of the leading recreational pastimes as well as a growing mode of transportation for other, non-recreational purposes. Although recent HCRS data

indicates that up to half of the nation's people may now participate, a more conservative Tri-State survey implies that at least 30 percent or roughly 1,000,000 of Connecticut's residents bicycle. Many of these people are children who customarily have relied on the bike, but a very substantial number are adults.

Although no quantitative balancing of supply and demand is possible because of the customary cycling reliance on public roads, it is clear that existing facilities statewide are inadequate to provide a safe, pleasant experience. Few bona fide bike trails have been developed, with occasional paint striping or laning on busy state and town roads--not a satisfactory answer. Therefore, DEP personnel note many park visitors bringing bikes to state parks attempting to find a safe place to ride.

Supply

In 1973 and 1974 a State Bicycle Plan was prepared by the Connecticut Department of Transportation (DOT). Also, \$400,000 in bonding authorization was given to DEP to build bike trails on DEP lands, and \$2,000,000 to DOT for grants to encourage the building of bike trails. Unfortunately, none of this was ever spent due to fiscal problems, and no bike trails were built.

Recommended Actions

Therefore, the State of Connecticut, acting through DEP and DOT, should, in cooperation with municipalities where appropriate, begin to construct a system of bike trails which can serve a multi-purpose role on both an intra-town and inter-town basis. Such trails should be located in proximity to population centers and connect recreation, school, residential, and commercial areas, as well as other bicycle trails.

TRAIL-ORIENTED ACTIVITIES SUMMARY

The preceding discussion has indicated the growing popularity of recreational trail activities in general, as well as some of the unique needs of specific sports. One problem facing the trail sports is that, with the exception of hiking, they do not have a developed trail system adequate to their needs. Another is that development pressures on private land are tending to bisect or even destroy, the viability of existing trail networks. Yet another is that all, and particularly the motorized sports, are highly space consumptive. In other words, they require a great deal of area in terms of the right-of-way corridor utilized. Lastly, and for some of the reasons listed above, some sports tend to conflict with others and have engendered bad feeling, especially when unauthorized use of hiking trails by incompatible uses has occurred.

The resolution of these issues lies in the development of a State Trail Policy which plans for the various needs of each activity and directs the development of a trails system which will prevent conflict between various trail and other recreational activities. Such a policy was prepared as a proposal in the 1974 SCORP. Although not officially adopted nor pursued, it is still a valid and timely concept and is therefore included as follows:

A STATE TRAIL POLICY FOR CONNECTICUT

A. Introduction. Recreational trail-using activity has had a long history in Connecticut, beginning at first with hiking and horseback riding but now expanding greatly to include such sports as trailbike riding, snowmobiling, bicycling, and cross-country skiing or ski touring. In earlier days, when Connecticut was a semi-rural state, the main responsibility for providing such opportunity lay with private trail groups which did an excellent job of developing and maintaining their trail systems with little or no assistance from government. However, the rapid urbanization of Connecticut and the consequent pressure for land development is posing a threat to existing privately maintained trail systems and also is causing competition for use

of public recreational land. As a result, the public sector has a growing responsibility to assure the continued availability of land for such recreational uses and to plan for their orderly location. Likewise, there is a continuing role for the private landowner in trails and other recreation. Prime responsibility for these functions must rest with the Department of Environmental Protection, working in cooperation with other state agencies, with municipal governments, with private trail organizations, and with private landowners. It is therefore the intent of DEP to promulgate an official Trails Policy which will recognize the key recreational role played by trail activities and will spell out the specific elements governing the State's position vis-a-vis trails in Connecticut.

B. Statutory Responsibility. Although specific mention of trails and trail use is not seen in early state enabling legislation, general references are seen in Section 23-4 of the General Statutes which states that: "The Commissioner of Environmental Protection may make regulations for the maintenance of order, safety and sanitation upon the lands in his control," and in Section 23-10 stating that "Said Commissioner may develop recreational areas or picnic areas for public use--in the state parks and forest." Within this broad enabling umbrella, various administrative decisions over the years allowing or encouraging trail use of state lands have given a more specific basis for legitimizing state involvement in such activities.

C. General Elements of the State Trail Policy. To specify the division of responsibility for trail planning, development, protection, and operation and to help coordinate such activities, the following policy elements are hereby proclaimed and shall serve as guidelines for DEP involvement in recreational trail use issues.

1) DEP shall have the responsibility to cooperate with private trail user interests and landowners in providing a general plan for trail-using activities in Connecticut. Said plan shall show a multimode system of trails and shall be in accordance with the State Plan of Conservation and Development. It is recognized that a definitive approach to trail use for Connecticut will involve a reasonable use of both public and private lands and the cooperative effort of the state, landowners, and users.

- | | |
|---------------------|--|
| a. Trailbike trail | Trailbike riding, with hiking also acceptable at hikers' own risk. In the winter, such vehicular trails may be used for snowmobiling. |
| b. Snowmobile trail | Snowmobiling, with other winter trail-using activities done at own risk. In the off seasons, such trails may be used for trailbike riding. |
| c. Bicycle trails | Bicycling, with hiking also allowable at hikers' own risk. |

2) DEP Land Management Use Restrictions on Trail Development. Allowable trail uses by management category are as follows:

<u>Trail Type</u>	<u>Local Management Areas Where Allowable</u>
a. Hiking trail use	Everywhere except in Natural Areas where restriction of use may be desirable or in Fish and Wildlife Areas during the hunting season.

- b. Horse trail use Everywhere except in areas of limited size where primary management goals of preservation or of mass recreation may not be compatible with horse trail use. Such restricted properties may include Natural Areas, Heritage Areas, Recreation Areas, Parks, and Beaches and wetland portions of Fish and Wildlife Areas. In addition, seasonable restrictions on other Fish and Wildlife Areas may be advisable in the hunting season.
- c. Trailbike trail use Limited to designated State Forests unless otherwise specified by special permit.
- d. Snowmobile trail use Limited to designated State Forests unless otherwise specified by special permit.
- e. Bicycle trail use By the nature of the sport, use areas are limited largely to paved or packed earth rights-of-way typical of some park roads and town roads through state property. Bicycling should be allowed on such roads where traffic and safety issues do not pose serious problems.

3) DEP may continue to provide, under permit, lands under its jurisdiction for development, and use by interested groups and organizations, for trial use by the general public. Said permittees shall have responsibility for maintenance and operation of such trails.

4) DEP may develop, maintain and operate certain trails on State lands.

5) DEP shall have the responsibility, in cooperation with private use groups, to protect the integrity of individual trail rights-of-way as specified in existing and subsequent State legislation, State plans, or other official state documents. Such mechanisms may include but not be limited to cooperative agreement, easement, gift, or acquisition. Specific examples of such trails shall include the Appalachian Trail and the Route Seven Linear Park (which shall be implemented by a cooperative effort of DEP, DOT, towns, and other interested bodies wherever applicable).

6) DEP has the responsibility to develop, operate, and maintain certain trails as specified in existing and subsequent State legislation. Specific examples may include more formally-developed rights-of-way such as linear bicycle trail facilities where a direct State role is essential. However, this shall not preclude DEP from entering into cooperative agreements with DOT, towns, and other public and private agencies and organizations wherever possible to have said operation and maintenance performed.

7) DEP may provide technical assistance to trail-using interests to help coordinate their activities in order to make maximum use of the trail

resources of Connecticut and to avoid possible areas of friction and controversy.

D. Specific Elements of a State Trail Policy.

1) Types of Trails. It shall be the policy of the State of Connecticut to recommend single use trails wherever possible, although some multiple use may be acceptable in cases where different uses are compatible or in short connecting links in trail systems, as along park or town roads. Trail types along with permitted uses shall include:

<u>Trail Type</u>	<u>Allowable Trail-Using Activities</u>
a. Hiking trail	Hiking only--except where otherwise specified. Winter activities may include snowshoeing.
b. Horse trail	Horseback riding, with hiking also acceptable at hikers' own risk. Winter activities may include snowshoeing or ski-touring.

2) Administrative Responsibility for Trail Development, Operation, and Maintenance.

<u>Trail Type</u>	<u>Administrative Responsibility</u>
a. Hiking trail	Private trail-using groups except with specific trails or trail systems in State Parks, Recreation Areas, Heritage Areas, and Beaches where DEP shall have such responsibility.
b. Horse trail	Private trail-using groups except in specific cases where DEP formally assumes such responsibility.
c. Trailbike trail	Private trail-using groups except cases where DEP formally assumes such responsibility.
d. Snowmobile trail	Private trail-using groups except in specific cases where DEP formally assumes such responsibility.
e. Bicycle trail	Responsibility for any bicycle trail will be determined on a case-by-case basis by the parties involved, possibly including DEP, DOT, or various municipal or other public bodies.

E. A Suggested Strategy for Achieving A State Trails System. A key aspect of implementing a State Trails policy will be to plan and develop a comprehensive State Trails system. Although a great deal has already been done by

various public and private interests to date, there is an immediate need for a body representing all such points of view which can serve to coordinate these efforts effectively. This plan, therefore, recommends the establishment of a joint committee to assume this responsibility. Participants should include, but not necessarily be limited to, the State, the Connecticut Trail Users Conference, and representatives of public utilities and other major landowners.

OUTDOOR RECREATION AT THE LOCAL LEVEL

A vital part of outdoor recreation is that portion which is carried out as a more or less regular element in one's daily routine. Of necessity, most such recreational activity is located in close proximity to the home and nearby surroundings within which the ordinary citizen spends the bulk of at least his non-working hours.

Some of this play may occur in the backyard, on neighboring streets, or at facilities provided as part of an apartment or condominium complex. Other activities may utilize private facilities, whether commercial or social in nature. Nevertheless, the bulk of local outdoor recreation in Connecticut is dependent upon municipal facilities and programs, especially those types utilized by school age children, young adults, the elderly, and the economically disadvantaged. These may range in size and character from tot lots to neighborhood parks and playgrounds, to the large communitywide park or largely undeveloped open space. Nonetheless, they are all key elements in an outdoor recreation system which must service the daily needs of most of the municipality's population.

Although it is impossible to clearly separate the roles of the local and the Statewide/Regional recreational systems, a general division of roles can be seen as described in Chapter III of this plan. Whereas the Statewide/Regional system has historically been largely nature or resource-based,

and generally the responsibility of state government, local recreation has been more program-oriented.

More specifically, local recreation must provide developed facilities which are readily accessible by mass transportation, bicycling and walking. The basic ingredients often seem to be: (1) a landbase for activities, (2) site developments to allow certain activities to take place, and (3) programs to allow intensive use, often of a highly organized nature, to occur.

Thus, local recreation frequently consists largely of sports and other playfield/playground activities. Historically these have served children and young adults, through municipal and quasi-public programs such as Little League Baseball. However, in recent years there has been a major increase in adult league sports, especially softball, for both men and women.

Other activities commonly found in the local system are swimming, tennis, and golf. Towns often provide instructional programs for children in swimming and tennis. The private sector frequently plays a significant role in providing tennis and golf facilities. It is, however, the local public sector which must provide the bulk of the intensive recreational opportunities sought by the general public. The responsibility to meet the needs of such special segments of the population as the handicapped and elderly is becoming recognized as well.

ADEQUACY OF LOCAL RECREATIONAL OPPORTUNITIES IN CONNECTICUT

Measures of recreational adequacy are, as this plan has previously acknowledged, either objective, subjective, or sometimes a blend of the two. Objective evaluation ideally is the best approach wherever suitable data

exists. However, data on recreational opportunity is often missing or incomplete, or questionable in quality, or even non-comparable. Evaluations usually must rely on quantitative facility standards which, when examined closely, are often highly subjective in nature. Furthermore, quantitative standards do not allow consideration of qualitative factors affecting the recreational experience or programming. Thus, Connecticut's SCORP process uses a pragmatic approach utilizing available data and insights which seem to provide a reasonable evaluation of recreational supply deficiencies, recognizing that the available data does have some limitations.

A number of tools were used in this SCORP update to assess adequacy of existing supply. The first was an independent assessment of adequacy of municipal recreational facilities done by the State of Connecticut Department of Community Affairs (DCA).¹ A second was the Municipal Needs and Preferences Survey sent to recreation professionals and/or commissions in every municipality in the state to elicit local expert opinion on local recreational needs and issues (Appendix E). The third involved personal interviews with the parks and recreation administrators in 12 of the state's major cities to obtain further insights into the special recreational needs of urban communities as discussed in detail in Chapter VII of this plan. The last source was the Public Attitudes and Preferences Survey (Appendix F).

The findings of the DCA Survey have been utilized to assess the adequacy of local outdoor recreational facilities.² Of Connecticut's 169 municipalities,

¹Department of Community Affairs, State of Connecticut. Results of Statewide Recreational Questionnaire, August 1977. (Appendix D)

²Detailed findings and minimum supply standards utilized are presented in Appendix D.

69 percent (116) responded to this survey. Survey responses were analyzed by individual recreational activities for seven population size classes.¹ Assessing existing municipal recreational supply in relation to recommended minimum standards, provided a number of insights with regard to the adequacy of existing local facilities and the opportunities they provide.

1. In general, the state's communities do not compare well to DCA standards in providing outdoor recreational facilities. For all towns reporting in the DCA recreational survey, the overall percentage of facilities and acreages that met or exceeded the standards was only 32 percent.

2. The survey results generally show that towns and cities with the greatest population tend to compare relatively poorly to supply standards. As seen in Figure IV-7, the relative degree of adequacy for responding municipalities with populations of 25,000 or under ranged from 33 to 35 percent. A perceptible drop in the average percentage of adequacy occurred in more populous communities, decreasing to approximately 20 percent for towns and cities with populations over 75,000.

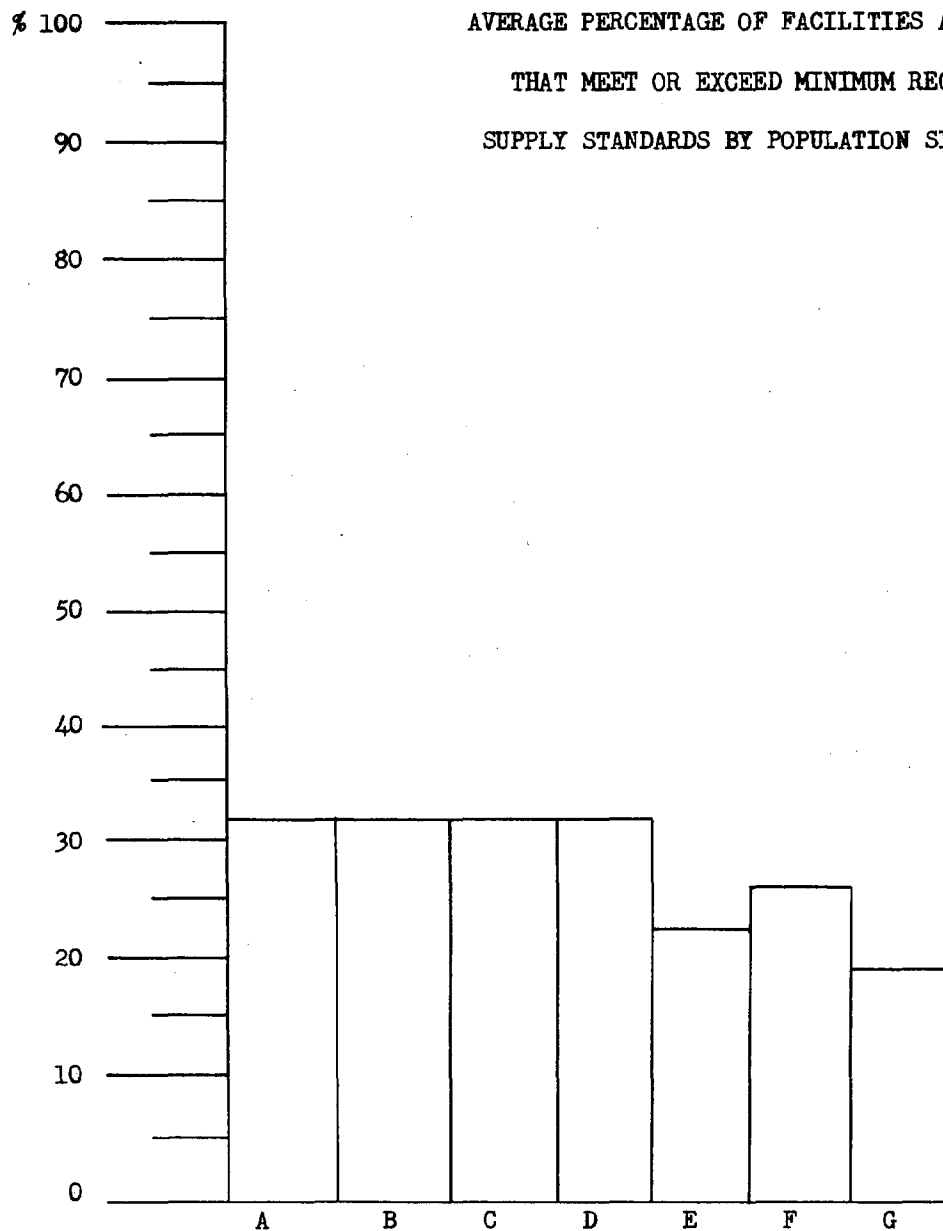
3. As communities gain in population, they experience an increasing demand for outdoor recreational facilities other than basic field areas. In response to this demand, towns with populations exceeding 8,000 tended to provide more facilities such as handball courts, boat launch areas, and golf courses.

The municipal Needs and Preferences Survey included all of the state's 169 towns. Responses were received from 74 towns (44 percent). Cities personally interviewed included Bridgeport, Danbury, Hartford, Meriden, Middletown, New Britain, New London, New Haven, Norwalk, Norwich, Stamford,

¹ Natural swimming areas were not included in existing outdoor recreation facilities surveyed.

Figure IV-7

AVERAGE PERCENTAGE OF FACILITIES AND ACREAGE
THAT MEET OR EXCEED MINIMUM RECREATION
SUPPLY STANDARDS BY POPULATION SIZE GROUP^a



Population Grouping
LEGEND

Group A - Under 3,500 population
Group B - 3,500 to 8,000 population
Group C - 8,000 to 15,000 population
Group D - 15,000 to 25,000 population

Group E - 25,000 to 40,000 population
Group F - 40,000 to 75,000 population
Group G - Over 75,000 population

^a See Appendix D, minimum supply standards utilized.
Source: Department of Community Affairs, State of Connecticut. Results of
Statewide Recreation Questionnaire, August 1977.

and Waterbury. The Public Attitude and Preferences Survey contacted 141 conservation, recreation user, civic, labor, business, minority, and community groups. Twenty-two percent of these groups responded.

Based on the findings of the Municipal Needs and Preferences Survey, the five top municipal outdoor recreation problems by order of priority are: (1) a lack of funds to develop facilities, (2) a lack of funds to maintain existing local outdoor recreational facilities, (3) the lack of neighborhood recreational facilities, (4) a lack of funds for recreational programs, and (5) a lack of funds for open space and outdoor recreational land acquisition. The expressed need for development funds is particularly outstanding. Conversely, the lack of suitable land, pollution, the pressure of out-of-town users, and vandalism and crime, although perceived as problem areas, did not rank within the top five overall priorities. The order of priority of these needs varies somewhat for the different types (urban, suburban, and rural) and sizes of municipalities in the state. For example, Connecticut cities' greatest and most immediate need is funds for operations and maintenance.

In light of the facility and program inadequacies, and perceptions of growth of participation expressed by the state's municipalities in the Municipal Needs and Preferences Survey, the following additional general types of facilities by order of priority are deemed necessary:

<u>Ranking</u>	<u>Recreational Facility</u>
1	Swimming
2	Tennis
3	Ball fields
4	Playgrounds
4	Ice Skating
5	Specialized ball fields (soccer, softball)

These priorities vary somewhat by broad community type with major recommended additions including:

<u>Community Type</u>	<u>Recommended Recreational Facilities</u>
1. Rural	Tennis Swimming Ball fields
2. Suburban	Specialized Ball fields Swimming, Tennis Ball fields
3. Urban	Ball fields

In terms of short-range as opposed to long-range needs, the following recommendations were made by all respondent municipalities:

<u>Ranking</u>	<u>Additional Facilities Needed in Next Twenty Years</u>
1	Tennis
2	Swimming
3	Ball fields
4	Ice Skating
4	Bicycling

Regardless of type of community or probable time frame for investment, local perceived needs do center around certain basic facilities needed for swimming, tennis, and field sports of various types, activities which involve large numbers of people both directly as participants and indirectly as spectators. Also noteworthy is the need for facilities for such activities as ice skating and bicycling which have increased dramatically in popularity.

Many of the needs already identified above were reiterated in the results of the Public Attitudes and Preferences Survey and personal interviews with parks and recreation administrators in some of Connecticut's cities. However, both indicated that the problems are generally more acute in urban communities. Seventy percent of the respondents to the Public Attitudes and Preferences Survey indicated that urban outdoor recreational facilities in Connecticut

are inadequate. As detailed in Chapter VII of this plan, severe shortcomings in recreational adequacy and opportunities occur in most urban communities, whether large or moderate-sized in terms of population.

RECOMMENDED ACTIONS

The preceding discussion has evaluated the status of municipal recreation in Connecticut. While differences exist between communities' abilities to serve their needs, municipal recreation presently has many shortcomings and inadequacies. These deficiencies are particularly severe in urban areas and their inner-city neighborhoods.

The provision of adequate capital investment and maintenance moneys to renovate deteriorated facilities would help considerably. However, the typical municipality under existing heavy reliance on the property tax is hard pressed to raise additional revenues for desirable public programs such as recreation. This problem is becoming increasingly severe as inflation reduces the recreational services from given dollar allocations. The failure of communities to budget adequate funds for operation and maintenance of recreational programs contributes to the failure to serve the public despite investment in land and facilities.

The State Comprehensive Outdoor Recreation Plan cannot solve major fiscal or social issues. However, it can identify problems and make pragmatic recommendations within the existing economic, institutional, and social constraints.

Recommendations by type of community are listed below:

1. Central City - Although rehabilitation of existing facilities frequently is needed as stated above, a special urban problem is the need to provide suitable outdoor recreational opportunities in inner city neighborhoods which often have a high resident population density, many social problems,

and inadequate park and recreational facilities. Furthermore, a goal of city government should be to ensure full cooperation between its park and recreation and education operations to maximize effective use of both outdoor and indoor recreational facilities available at educational facilities.

2. Large Suburb - Moderate-Sized City - Such communities, often having undergone substantial growth since World War II and lacking the basic park system possessed by major cities, must set a high priority on the acquisition and development of areas needed to provide the municipality with a basic park system which offers a full range of recreational opportunities.

3. Small Community - The rural town and the small, but often fast-growing, suburban town often lack the rudiments of a comprehensive park system and historically have relied heavily on recreation provided by private individuals and groups. Also, many of these communities lack the tax base to allow substantial investment in recreational development and operations. Thus their prime need is to provide the basic elements of a recreational program, including a swimming facility, a town-wide park, and playground-fields sports, utilizing available school facilities wherever possible. The towns of the greater Danbury area, the state's fastest developing area, are in particular need of increasing their recreational services and facilities.

Suggested specific actions to help address the general local outdoor recreational needs include:

A. Provide needed moneys for capital spending, including land acquisition, development and rehabilitation (especially in urban communities). Suggested means of providing such funds include: (1) provision by the State of Connecticut of one-half of the non-federal share for open space land acquisitions and development costs as provided for in Sections 7-131c to

7-131k of the Connecticut General Statutes; (2) reassess existing enabling legislation (PA 77-548) mandating the Department of Environmental Protection to allocate 25 percent of the total Connecticut apportionment for municipal recreational development; and (3) maximizing the potential for providing the local share of municipal projects through partial gifts, in-kind services, and use of the Community Development Act (CDA) moneys. In addition, the urban renewal process should be fully utilized as a means of providing recreation areas in neighborhoods where they are presently lacking.

B. Find sufficient needed moneys to adequately finance park and recreation operations and maintenance. Inadequate financing of outdoor recreation is a major problem in most Connecticut communities. This problem has reached relatively serious proportions in most urban communities where insufficient tax moneys combine with pressing social problems. Parks and recreation budgets are therefore generally a low priority item in the overall city or town budget. Under present conditions, towns and cities will continue to increasingly rely on federal funding sources for operations and maintenance. (1) Urban park departments as well as similar departments in some other communities, presently rely heavily on operations and maintenance personnel paid with federal moneys under the Comprehensive Employment and Training Act (CETA). Due to the very uncertain future of CETA, increasing dependence on CETA staff is a short-term remedy and it is recommended that municipalities maintain a core of permanent, locally funded, operations and maintenance personnel. (2) Another measure would be to establish a separate Federal Park Operation and Maintenance Grant-in-Aid Program which would parallel and complement the Land and Water Conservation Act Fund.

C. Utilize existing municipal police powers and spending programs

to enhance local outdoor recreational resources, including (1) utilization of powers enabled by Sections 8-25 and 8-13d of the Connecticut General Statutes allowing municipal planning and zoning commissions in their regulations to require setting aside public open space for parks or playgrounds as part of a subdivision or planned unit development; and (2) inclusion of on-site outdoor recreation facilities as part of low income and elderly housing projects.

recreation

5

Major Water and Land Recreation Resource Issues

MAJOR LAND AND WATER RECREATIONRESOURCE ISSUESWATER RESOURCES

"Water, water, everywhere,
and all the boards did shrink;
Water, water, everywhere,
Nor any drop to drink."

Rime of the Ancient Mariner.
Samuel Coleridge

The Rime of the Ancient Mariner expresses the dilemma of one man confronted with abundant water but inability to utilize it to meet his needs.

Connecticut, with its relatively abundant rainfall contributing to lakes, rivers and streams and with its location on Long Island Sound, is fortunate compared to many areas of the United States. Yet, the mere abundance of water is not a sufficient criteria upon which to judge its availability and usefulness in fulfilling the needs of our citizens. This fact became apparent with the awakening of our consciousness of the impact of pollution on the quality of our water bodies as algal blooms increased, productive fisheries were eliminated, shellfish grounds were closed and swimming areas abandoned.

In 1957, the Connecticut Water Resources Commission made its report to the General Assumbly on "Water Resources in Connecticut." They set forth their view of the future in their observations regarding recreational waters:

"Water for recreation and wildlife is necessary and vital to the well-being of the citizens of this State as well as drinking water, or water for power, agriculture, or industry. This is a great unrecognized fact in water use of the last two centuries, and is only now beginning to get its due share of attention as more and more waters are being made unavailable for recreation by such factors as pollution, withdrawal for public water supplies, industry, and diversion for irrigation.

"The demand for recreational water exceeds the supply, and in the future the demand will accelerate faster than the demand for any other water use, while the supply will diminish, if the present trends continue. Demand will increase, not only as population increases, but as people have more leisure, more mobility, and come more to feel the pressing need for the spiritual and physical regeneration and recreation in outdoor activities."¹

The Commission concluded that:

"Pollution abatement and multiple use are the principle means by which the supply of water for recreational uses can be appreciably increased."²

As a state, we have reacted to the losses imposed by pollution and joined with the nation in passage of pollution control legislation and demonstrated a willingness to invest in pollution control technology. In Connecticut, the capital costs of municipal waste treatment systems over the past 15 years total more than \$1 billion in federal funds and \$250 million in state funds plus local government allocations for sewer construction and treatment plants. Private industrial and commercial construction investment in Connecticut from 1971-1976 for water pollution abatement has amounted to an estimated \$40 million for which more than \$2 million in credits against state corporate taxes were obtained. The funding of these capital investments and their associated operating and maintenance costs have made significant improvement in water quality restoration. All of our citizens contribute to preserving and enhancing water quality through their payment of federal, state and local taxes, a portion of which are used for pollution abatement. However, not only tax dollars are involved. When we require private industries to clean up, they pass a portion of the costs on to the consumers through higher prices. We all end up paying the cost.

As preported by the U.S. Environmental Protection Agency and the Connecticut Department of Environmental Protection, 51 percent (207 miles) of

¹Water Resources Commission, Report to the General Assembly, State of Connecticut, 1957. pg. III.

²Ibid.

Connecticut's 409 miles of main stem and major tributary rivers now meet Class "B" Fishable/Swimmable Classification standards. This reflects an 8 percent increase over 1976 (173 miles), with 352 miles expected to achieve the Class "B" standard by 1983. (The Housatonic River, from the Massachusetts border to the Shepaug Dam has recently been reclassified from Bs to D based on the discovery of polychlorinated biphenyls (PCB's) in fish and bottom sediments. The State Health Department has warned against consumption of fish caught in this stretch of the river). Major improvements in water quality have contributed to the growth of water-oriented outdoor activities such as canoeing and boating (all forms) and enhanced these waterways' recreation and aesthetic values.

The significance of the pollution abatement measures are amply demonstrated on the Willimantic River which has been sufficiently cleansed to allow stocking of trout. This restoration has not only added to recreational fisheries but has also attracted significant canoe activity. The Naugatuck River, long contaminated by metal finishing waste waters and sewage and considered in sections to be biologically incapable of supporting significant aquatic life, has similarly undergone a metamorphosis. Fish have reestablished themselves and the river now has potential for contributing to the public well-being.

Improvements in water quality have in turn contributed to rapidly increased land values of properties adjacent to waterways and conflicts between the public's desire to recreate and landowners' concern over potential abuse from increased recreation pressures. Posting against trespassing has become a prime concern to recreation planners and user groups. A continuation of the trend to increased posting can have a major impact upon the available water resource base for recreation.

While we have come to grips with the pollution issue, there has been

neglect of the multiple use concept and preserving for the public the opportunity to utilize the waterways and water bodies by providing public access.

The issues of multiple use and public access are enmeshed in Connecticut's Water Law which has evolved over two hundred years and reflects numerous court rulings on specific aspects of water rights. There are important distinctions between the law as it pertains to public and private watercourses.

"Public watercourses are those affected by the ocean or seas wherein the tide ebbs and flows; or where on factual navigation may be carried forth in the prosecution of some useful gain or occupation. Watercourses denominated private are generally neither navigable nor affected by the ebb and flow of the tide."¹

This distinction has major implications for the legal status of non-navigable (private) watercourses:

"First, the ownership of subaqueous lands underlying nonnavigable waters is private. Second, a nonnavigable watercourse may be reasonably diverted or dammed for water supply purposes without interfering with the paramount public use of it for transportation, trade or commerce."²

In Connecticut, the landowners through whose property a private watercourse flows, can restrict access and use of the watercourse by their ownership of the subaqueous lands. Public use of private watercourses must rely on the consent of the landowners or some form of public ownership of properties or property rights such as a lease. As recreation activity increases, a definite trend of restriction of public access on private lands has been observed.

In 1971, the State of Connecticut enacted P.A. 249, S. 2-4 to help maintain public access across private property by restricting the landowners' liability for those utilizing the land for recreation purposes.

The Connecticut General Statutes Sections 52-557f-j set forth the liability issue. Section 52-557g states:

Sec. 52-557g. Owner of land available to public for recreation not liable, when. (a) Except as provided in section 52-557h, an owner of five or more acres of land who makes such land available to the public without charge, rent, fee or other commercial service for recre-

¹Robert I. Reis, Connecticut Water Law & Judicial Allocation of Water Resources, Institute of Water Resources, University of Connecticut, Storrs, Connecticut, 1967, pg. 17.

²Ibid.

ational purposes owes no duty of care to keep such land safe for entry or use by others for recreational purposes, or to give any warning of a dangerous condition, use, structure or activity on such premises to persons entering for such purposes. (b) Except as provided in section 52-557h, an owner of five or more acres of land who, either directly or indirectly, invites or permits without charge, rent, fee or other commercial service any person to use such land for recreational purposes does not thereby: (1) Make any representation that the premises are safe for any purpose; (2) confer upon such person who enters or uses such land for such recreational purposes the legal status of an invitee or licensee to whom a duty of care is owed; (3) assume responsibility for or incur liability for an injury to person or property caused by an act or omission of such owner. (c) Unless otherwise agreed in writing, the provisions of subsection (a) and (b) of this section shall be deemed applicable to the duties and liability of an owner of land leased to the state or any subdivision thereof for recreational purposes. (1971, P.A. 249, S. 2-4)

The legislation does not restrict the owner's right to post his property against trespass. Therefore, the only ways to ensure public access is through acquisition, easement or lease of lands.

Connecticut's Water Law concerning lakes, ponds and marshes is denoted in terms of littoral rights to use water accorded the ownership of land surrounding or touching upon a lake or pond.¹

"Bed ownership has been recognized in the Connecticut courts as being in:

- (1) The owner of "all" land around a lake or pond with clear title to the pond itself;
- (2) The fee owner of lands held subject to a flowage easement."²

The ownership of the bed has been held by Connecticut courts to include exclusive control over surface water use. Where several littoral proprietors exist; "....The right to the use of the surface of the lake for all necessary and proper purposes is common to all littoral proprietors."³

To assure continued public access to lakes and ponds, the State must acquire littoral rights either through ownership of subaqueous lands, flowage rights, or adjacent lands.

¹Ibid. p. 89.

²Ibid.

³Ibid., p. 90.

Public access and the proper mix of public and private ownership often become very heated and emotional issues. Opposition of private owners to public acquisition of properties offered for sale on the market has created major difficulties for the State in providing Connecticut citizens access to major watercourses and water bodies which can accommodate recreational activities. There is a real need to open dialogue between citizens, private owners and public officials on the difficult issues of public access and management programs.

The State of Connecticut's Conservation and Development Policies Plan Proposed Revision of 1979 suggests an avenue of approach for watercourses:

"In some areas of the State, the dominant features of the landscape are large-scale ridges and valleys. Some of these areas have remained relatively free of development and artificial impoundments. They represent outstanding examples of the state's natural heritage. It has long been advocated that certain stream segments be preserved in their free-flowing condition because their natural, scenic, scientific, aesthetic and recreational values outweigh their value for other water and land development uses. The Connecticut River Gateway has been established as such a scenic river area. The Housatonic and Shepaug Rivers are currently being evaluated for potential management as wild, scenic or recreation rivers. Other segments (West Branch of Farmington, Scantic, Salmon-Blackledge, Eight Mile (East Haddam), Natchaug and Moosup-Quinebaug) have varying scenic, recreation or wildlife values which make them potential scenic or recreation stream management areas. The opportunity to more thoroughly and individually investigate these segments by state agencies, municipalities and concerned citizens and to consider coordinated approaches to their preservation and use should be considered before other irreversible commitments are made. A state wild and scenic streambelt system, modeled after federal legislation, may be considered for streams not eligible for inclusion in the federal system and where state and local interest in such protection remains."

The Farmington River can serve as a descriptive example of these types of issues. This river has received major public investments in water pollution abatement; \$50 million over 1965-1977.

TABLE V-1

FARMINGTON RIVER

PUBLIC CAPITAL COSTS FOR WATER POLLUTION CONTROL*

1965-1977

Federal Grants	\$26,707,552
State Grants	6,466,632
Local Costs	<u>16,525,067</u>

TOTAL \$49,699,251

*11 Communities on the River and Its Tributaries.

Source: Richard Willis, Eastern Connecticut State College, Assessment of Public Investment in Water Pollution Abatement for the Farmington River System, Department of Environmental Protection, Planning and Coordination Unit, May 1978.

The bonds for the construction costs computed at 5.5 percent annually require the public sector to annually expend \$3.4 million. The annual operating and maintenance costs which are paid for by local taxpayers, industrial and commercial users, amounts to \$1.1 million. Thus, taxpayer financed clean water expenditures are approximately \$4.5 million per annum.

Additional expenditures are made by industries located along the river which must maintain separate waste control systems. These expenditures are also partially underwritten by state and federal taxpayers through corporate tax writeoffs.

This major commitment by the governmental sector has met with considerable success in maintaining Class "B" standards for the entire 54 miles and has directly contributed to the river's recreation attractiveness. The river is a favorite with fishermen and the Department's Fish and Water Life Unit operates a major trout stocking program for the Farmington River and its tributaries. In the 1976-77 season, 54,920 trout were stocked in the river.

and provided fishing for an estimated 100,000 angler-days. Of equal significance is the potential for the Farmington River to be the first restored anadromous fishery in Connecticut. The Department and the U.S. Fish and Wildlife Service have stocked some 84,736 salmon smolts in their restoration program. The Stanley Works Company, U.S. Fish and Wildlife Service, and the Department have invested \$750,000 in construction of the Rainbow Falls fish ladder to allow anadromous fish to reach the upper reaches of the river and additional fish ladders at Collinsville are in the final planning stage. Already runs of shad have reached the spawning areas above the dam and in 1978 fifty-two salmon have been captured at Rainbow Falls.

Other recreation opportunities are also available. Boaters using both canoes and inner tubes enjoy the alternate sparkling white water stretches and the clear, deep, slower runs of the river. The extensiveness of this type of activity on the river can only be roughly estimated. Surveys of two sporting good outfitters indicate yearly canoe rentals of approximately 2,000. The Appalachian Mountain Club sponsors races and canoe trips which result in an estimated 1,200 canoeist user-days. Simsbury High School, one of the few secondary schools to have a rowing club, reports its crew team members spend several thousand rower days on the river each season. Based on these partial reports, it is probable that more than 10,000 user-days of recreation are currently realized.

The river also provides ample bird watching and wildlife observation opportunities. Sightings of various hawks, Canada geese, mallard ducks and other waterfowl, Baltimore orioles and numerous other bird species are common. In addition, migrating bald eagles are occasionally sighted along the river. Wildlife is particularly attracted to the river for the diversity of food supplies found in the river and along the banks.

The present total recreational use of the river is considerable and the demand for these types of water dependent recreational activities is expected to increase. The Farmington River in its proximity to the Greater Hartford Metropolitan area (population 700,000+) can be expected to receive additional recreation demand even without the restoration of the Atlantic salmon. Access to the river is an absolute necessity for these recreational activities, yet there is only limited public control of the access to the river. From Hogback Dam in Hartland to the junction with the Connecticut River, less than one-sixth of the total length is under public control.

TABLE V-2

FARMINGTON RIVER STREAM BED

Total length	616,800 feet	116.8 miles
State controlled	109,400	20.7
By lease or ownership		
Owned or abutted	48,700	9.2
Town controlled	1,700	.3
Electric Utility	9,100	1.7
Private	507,200	96.1

Almost half of the state control is only temporary in the form of lease agreements, leaving few stretches of the river with guaranteed public access. It may be necessary to make major acquisitions or secure rights to control the Farmington River to properly manage its Atlantic salmon fisheries. Significant problems of restricted access and illegal fishing have developed in Canadian rivers and elsewhere when public control is limited.

Recognition by Connecticut's citizens of the need to protect and preserve rivers is reflected in the actions of Citizens to Preserve the Scantic. The Scantic River, a tributary of the Connecticut, meanders through the towns

of Somers, Enfield, East Windsor, and South Windsor in the north central lowlands of the state. The undisturbed woodlands and balanced ecological environment of the area make it an attractive open space for preservation.

State efforts to preserve the land began in 1967 when the legislature authorized \$50,000 for a study for the State Park and Forest Commission. The consultants, Morton S. Fine and Associates, submitted a plan by which the state would acquire 3,760 acres in the four towns at an estimated cost of \$1,284,000. Total cost for development of a state park, including a swimming pool accommodating 3,000 and an 18 hole golf course, was estimated to be just over \$5 million. In 1969, the legislature authorized \$650,000 to start land acquisition but state finances and town opposition to such a large-scale developed recreational site stalled the project.

Meanwhile, a less ambitious proposal for a linear park with minimal development renewed the effort to save the valley from encroaching development. It was proposed that the state buy only the land in the floodplain and the area would be used for only those recreational activities compatible with a natural setting. Bills to authorize additional monies for acquisition were introduced in both the 1971 and 1973 sessions of the General Assembly. In May 1973, the Citizens to Preserve the Scantic presented a petition with signatures of 2,500 townspeople to Governor Meskill supporting the linear park concept and urging speedy acquisition. However, these plans fell victim to the State's austerity program.

The acquisition of the Scantic River Valley should have a high priority as the densely populated Capital Region has an increasing requirement for recreational open spaces and encroaching development continues to threaten the natural character of the valley. The scenic beauty and unspoiled quality of the land are its prime attractions. Several rare species of flora and

fauna can be found in the area. The river, presently a Class B waterway (Class A above the Somersville dam) supports a productive coldwater fishery and has stretches of rapids popular with white water canoeists. The historic Powder Hollow area in Enfield is the site of Connecticut's early powder industry of the 1800's. All of these recreational opportunities, available within 1/2 hour of the Greater Hartford metropolitan area via Interstate 91, are threatened unless prompt action is undertaken to acquire these lands and preserve them for future generations. However, preservation must be accomplished without unnecessarily restricting recreational opportunities which must be provided in this urbanized area. Citizens to Preserve the Scantic have renewed their initiative to have the State acquire lands along the river corridor and meetings with the Department to pursue these goals have proved valuable.

As with the Scantic River, citizen recognition of the scenic and recreational values of the upper Housatonic River, Shepaug River, and the lower Connecticut River has also resulted in local action.

Recently the upper 41 miles of the Housatonic River and the Shepaug River along with a portion of the Bantam River have been studied by the U.S. Department of the Interior's National Park Service. Both were determined to qualify for designation as National Wild and Scenic Rivers. The towns along these river segments, eight towns on the Housatonic River and five towns on the Shepaug River-Bantam River, have initiated action to establish a local river management system.

The lower Connecticut River and its adjoining estuarine environs is another waterway in the state of exceptional natural beauty as well as historical significance. In 1973, the Connecticut Legislature authorized

the establishment of a Connecticut River Gateway Conservation Zone encompassing the riverside portions of Chester, Deep River, East Haddam, Essex, Haddam, Lyme, Old Lyme and Old Saybrook. State legislation provided for protection of the area through a regional conservation compact among the eight towns and through State purchase of scenic easements and development rights. The Connecticut River Gateway Commission of local and regional representatives has responsibility to recommend areas in which the State should acquire scenic easements and development rights. One easement has thus far been donated to DEP.

THE COASTAL REGION

The Connecticut Coastal Area Management (CAM) report "Coastal Recreation Demand, Opportunities and Limitations in Connecticut's Coastal Area" sets forth the key geological limitations of Connecticut's coastal resources:

"Sandy beaches provide the most demanded coastal recreation opportunities in Connecticut. This physical resource is, however, neither abundant nor evenly distributed....Connecticut's coastal frontage amounts to 458 miles. Of this frontage 84.5 miles or 18 percent is sandy beach. This beach varies greatly in length, width and sand quality. Analysis of CAM coastal resource maps reveals that as much as one-third of the state's beaches are less than 1,500 feet in length. Because of their small size such beaches afford only limited public recreational opportunities....Coastal frontage includes Long Island Sound frontage and riverine frontage in the 36 coastal towns....Offshore islands which are not included in this figure provide an additional 90 miles of coastline."¹ (See Table V-3).

The CAM report notes that beach associations own 28 percent of the state's sandy beaches. "These association beaches provide recreational opportunities for many local residents. While these beaches have restricted access, they are generally heavily used. This appears particularly true of small association

¹Coastal Area Management, Coastal Recreational Demand, Opportunities, and Limitations in Connecticut's Coastal Area, Planning Report 25, 1978.

beaches found in high density residential areas."

In 1975, the Governor's Task Force on State Beaches and Shoreline Parks evaluated short range opportunities to increase beach capacity. As a result of the study, expansion of facilities at Rocky Neck, Hammonasset and Sherwood Island State Parks was recommended. At Rocky Neck, enrichment of the beach through dredging of offshore sand deposits is expected to double the size of the existing beach and, coupled with additional parking for 1,300 vehicles, will increase user capacity by 5,000 per day. The improvements to existing State facilities are critical to providing coastal recreation opportunities.

The CAM report notes that with respect to municipally-owned beaches and certain private beaches, they are generally at peak capacity during weekends and holidays and cannot accommodate significant additional users even if no barriers to access existed. Additionally, "many of these (private) 'beaches' are quite small (less than 1,500 feet in length) and are non-contiguous; hence they would be both costly to acquire and maintain."

The ownership and use patterns of the sandy beach areas are indicated in Table V-4. Of unique and special interest for acquisition are offshore islands. For example, many of the larger islands in the Norwalk Island group have good quality sandy beaches and have been noted in studies as good selections for public recreation and conservation purposes.

"Islands represent one of Connecticut's greatest unused coastal resources. The Connecticut coast is dotted with some 143 nearshore islands. Most of these islands have remained undeveloped largely as a result of the access difficulties. Islands constitute approximately 90 miles of undeveloped coastline. Many of these islands support populations of flora and fauna which have all but disappeared from the mainland. These nearshore islands offer Connecticut a unique opportunity of both recreation and preservation."¹

¹Coastal Area Management, Coastal Recreation Demand, Opportunities, and Limitations in Connecticut's Coastal Area, Planning Report 25, 1978.

TABLE V-3

DISTRIBUTION OF SANDY BEACH

<u>Town</u>	<u>Coastal Frontage (miles)</u>	<u>Sandy Beach (miles)</u>	<u>Sandy Beach % frontage</u>
Greenwich	27.2	1.7	6.2
Stamford	15.0	3.4	23.3
Darien	16.5	.3	1.8
Norwalk	17.0	.6	3.5
Westport	18.9	5.9	31.2
Fairfield	10.4	3.2	30.8
Bridgeport	18.0	2.5	13.9
Stratford	13.2	4.9	37.1
Milford	19.3	8.7	45.1
West Haven	7.9	4.4	55.7
New Haven	18.0	1.3	7.2
East Haven	3.4	2.3	67.6
Branford	18.6	3.4	18.3
Guilford	14.8	1.4	9.4
Madison	8.5	6.1	71.8
Clinton	8.7	4.0	45.9
Westbrook	7.4	3.9	52.7
Old Saybrook	18.6	4.9	26.3
Old Lyme	17.1	4.3	25.1
East Lyme	19.9	6.3	31.7
Waterford	22.4	4.0	17.8
New London	9.1	2.1	23.1
Groton	26.9	3.8	14.1
Stonington	37.9	1.0	2.6

Source: Coastal Area Management, Coastal Recreational Demand, Opportunities, and Limitations in Connecticut's Coastal Area. 1978. Re: Report 25.

TABLE V-4
OWNERSHIP OF SANDY BEACHES

<u>Private</u>	<u>Mileage</u>
Individuals	28.0
Associations	24.0
Conservation Groups	1.3
Commercial	.7
	<hr/>
TOTAL	54.0
 <u>Public</u>	
State	7.0
Municipal	23.5
	<hr/>
TOTAL	30.5

Source: Coastal Area Management, Coastal Recreational Demand, Opportunities, and Limitations in Connecticut's Coastal Area, 1978.

The demand for recreation boating has expanded rapidly over the past decade. The CAM report notes:

"While the boating activity occurs on the water, boating requires special types of shore based support facilities such as boat launching ramps and marinas. The majority of boating support facilities are provided by the commercial sector. These facilities are generally accessible to the public within the economic constraints of the user.

A 1976 survey of marinas in Connecticut conducted by Department of Commerce for CAM, identified 164 commercial marinas, 8 public marinas and 63 private yacht clubs. In addition, there are 13 state boat launching ramps providing access to the Sound, and 10 ramps providing access to the Connecticut River. A listing of the marinas, clubs and boat launching facilities is provided in Appendix E.

"The 164 commercial and 8 public marinas provide 16,485 slips and 3,108 mooring spaces. The number of spaces which the 63 private clubs provide is not known exactly. Based on earlier data, it can be estimated that these clubs provide in excess of 5,000 spaces. The number of opportunities which state boat launching ramps provide is not known, nor are reliable turnover rates for the use of these facilities available."

The report concludes:

"....In addition to power boats, sailboats account for much of the boating use of the Sound. Boats which are not powered need not be registered making the numbers of such crafts difficult to determine; current estimates place the number of sailboats in Connecticut at 30,000. The demand for recreational boating support facilities, based on boat registrations alone, currently exceeds the supply of these facilities.

"Due to the problems associated with power boating, notably the safety factor and the potential for degradation of water quality, it is unlikely that new, large scale boating facilities will be provided by the public sector. Instead, emphasis should be placed on increasing the number of state boat launching sites."

The CAM Coastal Recreation Study recommends as a "first priority action" that the State "prioritize existing recommendations for improving shorefront access..." The 1974 Connecticut Statewide Comprehensive Outdoor Recreation Plan (SCORP) "encompasses the major elements which a shorefront enhancement process should entail." Existing policy recommendations outlined in the 1974 SCORP included the following:

1. Increase present swimming capacity to correct existing deficiencies

in supply and to insure an adequate supply in the future to accommodate a growing population and expected increases in rates of participation.

2. Provide an additional 5,000 units of saltwater swimming capacity annually by a joint effort of state and local governments. Because of the limited financial resources at the local level and because beaches need to serve all the state's citizens, the major part of this effort should be assumed by the State.

3. Develop Silver Sands State Park which would add an additional 10,000 swimming units.

4. Acquire new coastal beaches through State action when large, privately-owned beaches, providing ample space for parking and ancillary facilities, are available for purchase. Areas frequently flooded or storm damaged should be considered for condemnation and/or acquisition.

5. Acquire offshore islands.

6. Continue the State's role of providing simpler forms of boat launching access to significant fishing and boating waters both inland and on the Sound.

WATER COMPANY LANDS

Significant acreages of water company lands previously considered in town, regional and state land use and open space plans as permanent open space, are being jeopardized by proposed sales. This situation primarily involves the investor-owned water companies within the state which own approximately 61,000 acres of watershed land with the largest concentration of ownership held by four companies. Similar pressure for sale of municipally-owned watershed lands totaling 72,000 acres may at some future date also materialize.

A principle reason which has created this situation was the passage of the Federal 1974 Safe Drinking Water Act. To meet impending standards, as well

as existing standards, companies anticipate the construction of treatment facilities and/or the abandonment of surface supplies in favor of increased groundwater use. Companies facing the impending prerequisite of treatment have challenged the requirement and need to maintain existing watershed ownership. Where yields from a reservoir system are low, coupled with the prospects of treatment, economics is dictating total abandonment in favor of groundwater use and subsequent sale of the reservoir and watershed lands.

The State Legislature has taken several actions to allow for an assessment of this situation, placing a two year moratorium on the sale of watershed lands by investor-owned companies in 1975 and then extending the moratorium until June 1979. A classification system of watershed lands based on health criteria has been developed which would allow for the sale of certain lands while placing impact criteria on future uses of these lands. Currently a five and twenty year forecast of proposed sales is being developed which will be evaluated against the objectives of programs of the Department of Environmental Protection to establish the desirability of any future purchases.

The purchase of any lands strictly for the purpose of intensive water and/or land-based recreation is severely restricted by the existing interpretation of the impact criteria. One potential for intensive water-based recreation does exist, however, where the abandonment of a reservoir is projected. This potential would have to be reviewed on a case-by-case basis considering such factors as location in relation to demand, accessibility, development costs, holding capacity, and water quality. Potential sale may complement the extensive types of Departmental programs but any large scale acquisition for this purpose is constrained by financial limitations.

The U.S. Department of Interior National Urban Recreation Study's quote from John M. Burdick, "Recreation in the Cities: Who Gains From Federal Aid," sets forth a perspective of the open space problem likely to be triggered by divestiture of water company lands.

"...the amount of money required to protect needed but threatened open space through acquisition alone is staggering--beyond the reach of all levels of government. Land prices are particularly high in areas threatened by development, where the need for purchase is imminent. Second, the conversion of open land from private to public ownership often has serious liabilities. In public hands, land must be maintained at taxpayer's expense, a costly burden in many areas. Frequently, public ownership involves the loss of economically productive and increasingly valuable farmland. And finally in private hands, the land can continue to play many of the valuable roles of open space. Ideally, then open space in metropolitan areas would be both public and privately owned, with government protection used to insure that the privately owned land is not lost to excessive development."

"...In the absence of sound land use controls, public funds are used to purchase land of little public use simply to keep it from being subdivided, and thus to protect it as open space. The availability of federal money through the (Land and Water Conservation) Fund for such purchases, encouraged by its genesis as a land banking fund, reduces the incentive of state and local governments to take on the politically sensitive issues of open space protection without acquisition."

In Connecticut, water company lands at present often serve as open space buffers around communities and have little utilization for either passive or active recreational activities. Without definitive knowledge of the amount of land to be declared surplus, it is impossible to estimate the cost of public acquisition. The limited Land and Water Conservation Act funds available to the State for acquisition and development (1978 estimated \$4.9 million maximum state funds, \$2.1 million municipal development) cannot meet the open space preservation goals of communities where land is placed on the market. Therefore, the State must carefully assess each parcel to insure that only those with the highest conservation and recreation potentials are funded from the LWCA program.

Communities should carefully establish policies which will ensure compatibility of private development with the welfare of their citizens. The establishment of open space lands requirements associated with subdivision construction as set forth in building requirements by some communities and development of open space plans for qualifying parcels for P.A. 490 preferential tax assessments are available tools.

There is a pressing need to develop public policies relative to the acquisition or disposal for development of large acreages of water company lands. If large acreages are declared surplus, the Land and Water Conservation Act funds will not be adequate to accommodate purchases by the State. Given the limited time to exercise first option, the State will not be able to purchase desired tracts unless special funding mechanisms are established. The State Legislature must institute programs for accommodating the purchase of suitable water company "surplus" lands.

AGRICULTURAL LANDS

Agricultural ownership represents about one-sixth of the state's total acreage, approximately 520,000 acres. Connecticut has experienced a progressive decline in the number of farm operations in response to many causal factors. During the early reduction in the number of farm units, many times the land associated with these units was absorbed by other farms. The actual farm land acreage lost as compared to the reduction of farming units during this period did not correspond. This trend is no longer evident, such that today when a farm operation is terminated the land is also lost from production.

Much recognition has been placed on the importance of protecting and preserving the state's agricultural lands in order to ensure a local base of food production, as an appropriate utilization of productive lands and the important

contribution these lands lend to the aesthetic appeal and landscape character of Connecticut. Historically, the most notable action of the state in assisting the preservation of farm land was the passage of preferential farm land taxation legislation. The essence of Public Act 490 allows for the assessment and taxing of farm land based upon use value rather than actual market value of the land.

In 1978 Public Act 78-232 was enacted which established a \$5 million pilot program to purchase the development rights on agricultural lands. These lands are to be determined by reference "to soil types, existing and past uses of such land for agricultural purposes, and other relevant factors for the cultivation of plants for production of human food and fiber, or production of other useful and valuable plant products for the production of animals, livestock, and poultry useful to man and the environment, and land capable of providing economically profitable farm units, and may include adjacent pastures, wooded land, natural drainage areas and other adjacent open areas." The Department of Agriculture administers the program with the Department of Environmental Protection assisting in the appraisal of the value of the development rights.

The success of this program is important to the future landscape quality and character of the state and, therefore, to the quality and enjoyment of passive recreational pursuits of its residents. These lands also have the potential to contribute to extensive recreational activities through their management for wildlife habitat as a compatible aspect of the farming operation. The allowance of hunting, fishing and hiking on portions of the owners' agriculture lands has provided substantial recreational opportunities for the state's citizens. The continuation and expansion of the Department of Environmental Protection Division of Conservation and Preservation's programs of cooperative leasing, stocking and policing is vital to securing these recreational options for the public.

Cultural and Natural Heritage

CONNECTICUT'S CULTURAL AND NATURAL HERITAGE

The State of Connecticut contains a rich heritage of natural, historical, and cultural value. Ever since the Connecticut Interregional Planning Program (CIPP) of the 1960's, Connecticut planners have recognized this heritage and have recommended its protection. State action programs have, however, failed in the past to recognize the interrelationship of these elements in forming the unique and generally beautiful landscape of Connecticut.

The federal government has taken the leadership role in stressing the need for joint protection of our natural and cultural heritage. Sparked by President Carter's personal commitment, as seen in the formation of a State Heritage Program in Georgia when he was Governor of that state, the U.S. Department of the Interior was directed to establish a National Heritage Task Force whose charge was to recommend steps to make a national Heritage Program a reality. It has indeed a sweeping mission, "to encompass and strengthen federal historic preservation efforts, and to develop a new parallel program for protection of significant natural resources."¹ This program will be administered within the Department of Interior by the Heritage Conservation and Recreation Service (formerly the Bureau of Outdoor Recreation).

Because of the potential significance of this program both nationally and locally, it is worth quoting in some detail the major elements of the heritage program and its six objectives, as follows:

¹Excerpted from January 20, 1978 letter from Chris T. Delaporte, Director of the U.S. Bureau of Outdoor Recreation to Stanley J. Pac, Commissioner of the Connecticut Department of Environmental Protection.

"First, and the central element of the entire theme, is development of a partnership--private citizens and local, State and Federal governments--for heritage resource identification and protection. Second, by providing a single point of contact within the Department of the Interior for natural and cultural heritage conservation, the Federal Government's performance in providing direction, technical assistance and funding to the States will be improved. Third, criteria will be developed by which heritage resources may be judged for significance to determine appropriate levels of protection. Fourth, the first comprehensive nationwide inventory of potential heritage resources will be initiated. It is the Department of the Interior's goal to have identified 50 percent of the Nation's heritage resources within three years, and 70 percent within five years. Fifth, the tools available for protection of heritage resources will be strengthened and expanded. Sixth, a failsafe mechanism will be established to assure that Federal agencies consider in advance the effect of their actions upon heritage resources."

GENERAL ELEMENTS OF THE CONNECTICUT CULTURAL HERITAGE

Connecticut contains a vast inheritance in terms of sites, structures, and artifacts of cultural significance. Both its relatively long (by New World standards) history and the nature of the original settlers are responsible for this fine legacy which it shares with much of the rest of New England--a rich and visually attractive regional cultural tradition. Although the prevailing architectural style was plain and simple, the lines were clean and graceful. The communal character of the settlers' society, a near theocracy, led to compact, structurally well-organized villages rather than the disorganized, scattered settlement of frontier regions, as elsewhere in America.

The Connecticut landscape received a strong cultural imprint, and one which was visually attractive as well. This imprint was maintained in the architectural style until the mid-nineteenth century, with the contemporary

¹ Excerpted from January 20, 1978 letter from Chris T. Delaporte, Director of the U.S. Bureau of Outdoor Recreation to Stanley J. Pac, Commissioner of the Connecticut Department of Environmental Protection.

beginning of large scale urbanization and adoption of the Victorian style of architecture. In addition, Connecticut contains many fine examples and groupings of Victorian and other more recent styles of architecture.

The major elements in Connecticut's cultural heritage consist of the thousands of individual structures and many groupings of structures, some of which are listed in the Connecticut Historical Commission's statewide inventory. The most significant type of grouping is the so-called "traditional village" or prototype New England village which dates from the communal period of Connecticut history. Frequently they contain a green around which attractive historic homes and churches are grouped. The traditional village remains a dominant feature in the landscape and varies in size from tiny hamlets such as Winchester Center or East Putnam to larger villages such as Farmington Village or Old Lyme.

Later post-communal age villages possessing much of the same architectural history as the traditional village also occur. The seaport village is one example and can be seen especially in Stonington Borough as well as in the nearby villages of Mystic and Noank. Early industrial age villages logically located along streams with their water power generating capability. Examples of these villages remain in Riverton, Pleasant Valley, West Goshen, and Sandy Hook (Newton). Later industrial communities of a more planned nature can be seen especially at Wauregan (Plainfield), Quebec Village (Brooklyn), Taftville (Norwich) and at Baltic (Sprague). In addition, a number of picturesque remains of the once-booming Connecticut iron industry can be found in the upper Housatonic Valley.

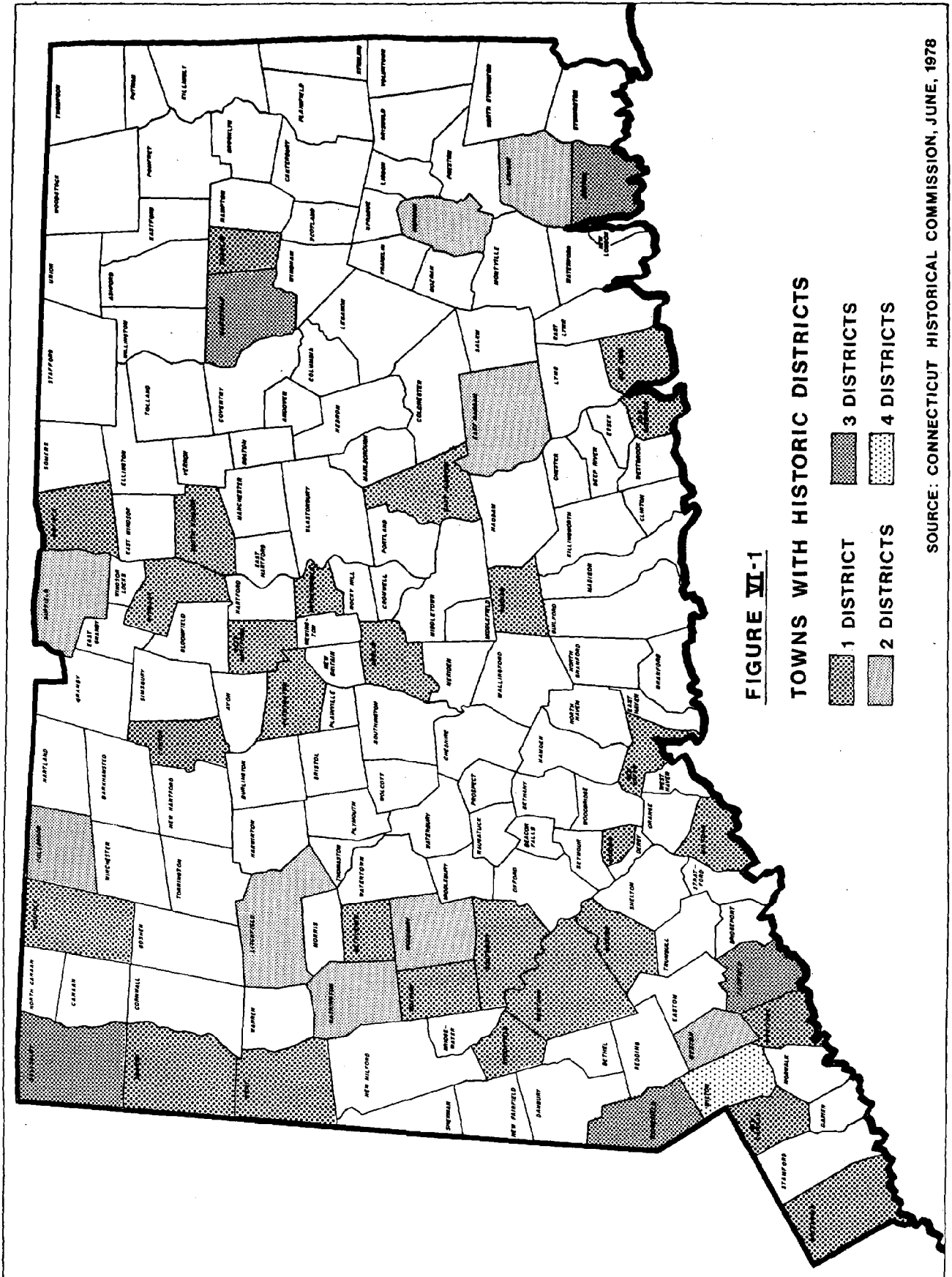
An analysis of existing native cultural heritage features indicates

a significant loss of this resource. Urbanization has wiped out much of the early colonial village character of old communities such as Hartford, Middletown, Norwich, and most cities along Long Island Sound. Where suburbanization has not directly impacted the native Connecticut village, it has indirectly influenced it through drastically altering the environs and setting of the settlement. Urban blight followed by early efforts at urban renewal has also taken a heavy toll of this inheritance.

Nevertheless, some substantial progress has been made. At present, 65 local historic districts have been established in 45 municipalities to protect a substantial portion of the most significant groupings of structures. Also, a number of more sensitively executed urban renewal projects, such as Wooster Square in New Haven and now Congress Street in Hartford, have been consciously developed around the restoration of existing buildings. The trend is at least positive for the other roughly 75-80 noteworthy traditional villages, historical groupings and single structures that have not as yet received such protection. Perhaps the main ingredient needed is an effective promotional and educational program to foster preservation in those communities which to date have not yet taken the initiative.

Previous SCORP's as well as the State Plan of Conservation and Development have documented the need to preserve key elements of the Connecticut heritage, as have various planning reports including The Green Land (CIPP, 1966) and The Appearance of Connecticut (CIPP, 1963). Similarly, more detailed inventories such as that of historic sites and structures by the State Historical Commission and of natural areas by the Connecticut Forest & Park Association have added to our knowledge of this inheritance.

A further step was taken by Connecticut's SCORP planning process in



the 1975-1977 period, when a series of "Bicentennial Monographs" were prepared. Their intent was to focus on certain significant landscapes or groupings of sites which were culturally important, yet which hitherto had not been consciously recognized as elements of the Connecticut countryside deserving preservation and/or restoration. By chronological order of publication, these included:

1. Northwestern Connecticut's Iron Hills Heritage is an analysis of the remaining features and artifacts of an industry which played a large part in the economic development of that portion of the state. Although its immediate effect was to strip the lovely hillsides of the upper Housatonic Valley for charcoal to fuel the iron furnaces and to darken the sky with soot, it played a leading role in the history of the region and its scattered stonework still remains a picturesque landscape feature. Of the original iron furnaces, only five now retain any semblance of their former appearance and therefore may merit preservation action. These include the Mt. Riga (Salisbury), Lime Rock (Salisbury), Beckley (North Canaan), Mine Hill (Roxbury), and Kent Furnaces. Of these, the Beckley and Kent Furnaces are in State ownership, with the Mt. Riga Furnace adequately protected by a private foundation. Immediate protective action is recommended only for the Mine Hill site which is deteriorating rapidly.

2. The Farmington Canal: A Proposal for Selective Restoration - Popularly known as the Farmington Canal, the New Haven and Northampton Canal was intended by its developers to provide New Haven with the opportunity to compete with Hartford for the trade of the upper Connecticut Valley. Completed in 1836, the Canal was cursed with a number of structural, climatic, and financial problems and never realized its potential. Although the opening

of the New Haven-Plainville Railroad in 1848 finally caused its demise, the Farmington Canal is still significant as Connecticut's prime example of a transportation mode popular in the early nineteenth century, America's canal-building era.

As canals elsewhere frequently have served as the focus of preservation and restoration efforts, an analysis was undertaken to determine the feasibility of such a project along the Farmington Canal. Unfortunately, time and man's subsequent activities have taken a very serious toll and it was deemed unfeasible to contemplate its complete restoration. Nevertheless, certain stretches do retain a substantial degree of structural survival and merit consideration either for preservation in their current, basically dry character, or for possible restoration as a waterway for canoers. In addition to a short stretch of water-filled canal restored by the Town of Plainville in its Norton Park, key segments meriting action include a two and a half mile dry stretch in Avon and Farmington and an eight mile stretch from the State Reformatory in Cheshire to the Mt. Carmel section of Hamden. It should be feasible to restore much of the locks and water at these two areas.

3. Eastern Connecticut's Textile Heritage - With the advent of the Industrial Revolution, many water-driven mills were developed along the rivers and brooks of New England. One of the most regionally significant developments of this era was the concentration of textile mills along the Quinebaug River and its tributaries in Eastern Connecticut. In this process, the upland agricultural character of many Yankee towns became replaced by a more urban, industrial visage, a change emphasized by a substantial inflow of immigrants to man the mills.

Most of the textile industry has long since moved South, leaving behind, as elsewhere, a legacy of continuing economic depression and resulting social hardship. Many attractive and significant relics of this era remain, however, as seen in the handsome stone and brick mills and a number of planned mill-housing complexes. These structures can play an important role in the renewal of these communities. In addition to many noteworthy examples of mills as yet surviving, the following complexes deserve attention: the "Quebec Village" section of Brooklyn and the mill and village complexes of Taftville (Norwich), Wauregan (Plainfield), and Baltic (Sprague). Suggested actions may include designation as landmarks or historic districts, renewal and/or rehabilitation where needed, adoptive reuse, and possibly development of an interpretive textile museum.

4. Connecticut's Marine Heritage Landscape - With many recent expressions of governmental concern over Long Island Sound and its shoreline, a cultural heritage survey to determine remaining concentrations of traditional maritime landscape features seemed timely. The findings of this analysis were, that, despite the increasingly urban character of the Connecticut coast, the segment east of the mouth of the Connecticut River along with the lower Connecticut River Valley and the Thames Estuary still do possess a substantial degree of native landscape charm and cultural interest. In this part of the Connecticut coast, the combination of historic sites and villages, parks and preserves, tidal marshes, and busy harbor scenes maintains the sense of this region's marine heritage. Taken together, this coastal region is of concern to the conservationist, the historical preservationist, and the proponent of tourism alike.

Therefore, development of a strategy for maintaining this valuable resource is recommended. One possible model is that already in force along

the lower Connecticut River where an eight town compact regulates the use of land in the Gateway Zone. Another is the suggested Mystic River Conservation Zone proposed by DEP in 1976, also necessitating inter-town management of this culturally significant estuarine area whereby the multiple uses of the Mystic River may be resolved to maintain the beauty and economic viability of this resource.

5. Connecticut's Alluvial Valley Heritage - The last of the Bicentennial Monographs analyzed the floodplain-oriented cultural landscape of central Connecticut which served as the heart of the Connecticut Colony. Interestingly, despite its location in metropolitan Hartford, much of this earlier landscape has survived along the Connecticut River floodplain and adjoining uplands in the Windsors, Wethersfield and its daughter towns of Glastonbury and Rocky Hill, and in Cromwell and Portland. Similarly, the mid-Farmington Valley from Farmington to Granby has also retained much of its native character. This rich agricultural sweep of the floodplains or meadows is bordered by the many historic villages and sites on the adjacent terraces, together illustrating an historic development pattern.

Action similar to that proposed for the coastal heritage zone is also needed in this area. Although intertown agreements to define and regulate a given landscape zone are possible, much can be done informally at the municipal level. Necessary actions include planning and zoning decisions, regulation of floodplains, establishment of historic districts, control of earth removal operations, selective acquisition of land for open space, and encouragement of continued farm operations. Therefore, the immediate need is to promote such enlightened action on the part of the towns concerned.

NATURAL AREA HERITAGE

Another important category of environmental heritage is that comprised of areas and sites of scientific, educational, or scenic value often called "natural areas." Examples of such tracts would include rare or unique floral and faunal communities and significant geologic sites. Increasingly, various states as well as the Federal Government have become concerned over their preservation and proper management and have joined with private conservation organizations such as The Nature Conservancy to identify and to protect them. An early step in Connecticut was the establishment in 1967 under Chapter 23-5c of the General Statutes the Natural Areas Preserves System within the Department of Agriculture and Natural Resources and its successor, the Department of Environmental Protection (DEP). Although the deliberations of the Advisory Committee mandated by this legislative action to date have resulted in the designation of only five natural areas on State lands, the basis for future joint action by the public and private sectors is established.

The type, diversity, and number of natural areas depends upon the nature of the underlying landbase and the climate. An essential step in categorizing such tracts is to identify the basic land and vegetational zones experienced in the state. A major step in this direction came with the development of a system of ecoregions as seen in Figure VI-2.

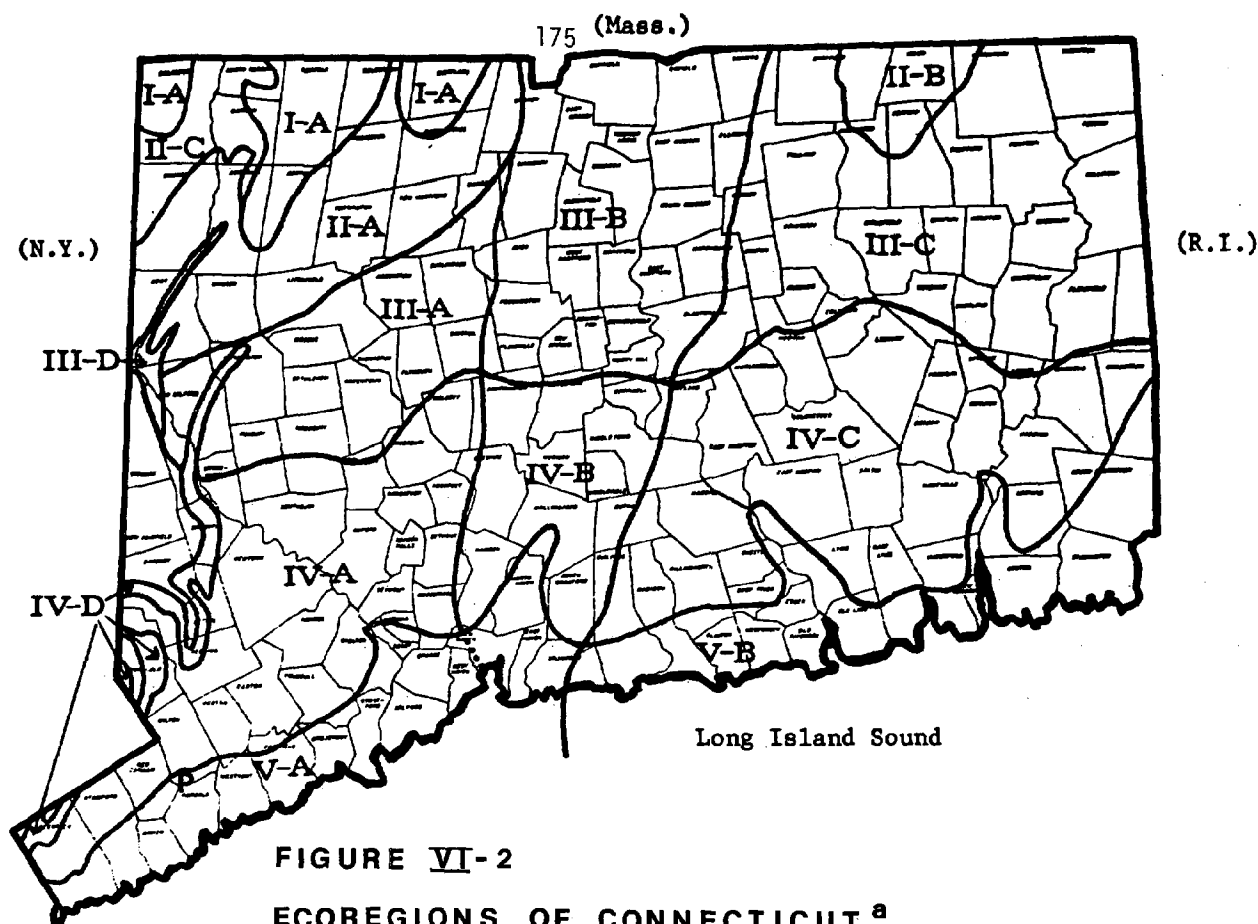
The pattern of ecoregions is a simple one, consisting basically of five northeast-southwest zones paralleling the shore of Long Island Sound. Differences between these macro-zones simply represent the changing landforms and vegetation communities encountered as one moves from the northwestern uplands with their prevailing woodland cover of sugar maple-beech-yellow birch-white pine-hemlock toward the coastal lowlands with an oak-hickory-

hemlock forest. The one major exception to this pattern of parallel zones is seen in western Connecticut where a north-south trending vein of limestone forms the so-called "Marble Valley" with its unique plant communities utilizing the available calcareous habitats.

The next step is to define "critical habitats," or those specific site types which are of limited extent and/or which are threatened by development pressures. Dowhan and Craig¹ found that the following habitats merited a "critical" rating in Connecticut:

1. Bird-breeding islands in Long Island Sound, significant in providing protected habitat for some of the few breeding colonies or rookeries of coastal birds in Connecticut.
2. Coastal sand beaches and dunes, providing important breeding habitat for coastal birds and habitat for fall migrants and winter resident birds. The few remaining relatively undisturbed examples of beach and dune in Connecticut also contain a number of rare plant species.
3. Black spruce bogs, an extremely rare wetland type containing many tree and other plant species of northern or boreal type.
4. High summits, high windswept areas found in scattered locations over 1,500 feet in elevation in northwestern Connecticut. These sites provide the only Connecticut habitat for certain northern or boreal species.
5. Trap-rock ridges, found within the Central lowland of Connecticut where they form a dominant landscape feature and also support many relatively rare species of flora and fauna.

¹Dowhan, J.J., and Craig, R.J., Rare and Endangered Species of Connecticut and Their Habitats, State of Connecticut, Dept. of Environmental Protection, 1976. pp. 15-24.



- I. Northwest Highlands-Northern Hardwoods zone
 - A. Northwest Highlands ecoregion
- II. Northern Uplands-Transitional Hardwoods zone
 - A. Northwest Uplands ecoregion
 - B. Northeast Uplands ecoregion
 - C. Northern Marble Valley
- III. Northern Hills-Central Hardwoods-White Pine zone
 - A. Northwest Hills ecoregion
 - B. North-Central Lowlands ecoregion
 - C. Northeast Hills ecoregion
 - D. Central Marble Valley
- IV. Southern Hills-Central Hardwoods zone
 - A. Southwest Hills ecoregion
 - B. South-Central Lowlands ecoregion
 - C. Southeast Hills ecoregion
 - D. Southern Marble Valley
- V. Coastal Hardwoods zone
 - A. Western Coastal ecoregion
 - B. Eastern Coastal ecoregion

^aDowhan, J.J., and Craig, R.J., Rare and Endangered Species of Connecticut and Their Habitats, State of Connecticut, Dept. of Environmental Protection, 1976.

6. Floodplain forests, largely destroyed in the process of land clearance for agriculture. These fertile areas support a great diversity of plant and animal species, especially songbirds.

7. Old-growth forests, remnants of the original rich forest cover of the state. Unfortunately, no examples of this virgin or semi-virgin woodland are known to exist.

8. Grasslands, or those relatively rare areas of natural grassland and open meadow supporting a characteristic biota.

9. Calcareous habitats, whose limestone-based soils support certain rare plant and animal species including ferns, cave faunas, and certain rare aquatic and wetland species. Because of their general fertility and resultant use for agriculture, there is a paucity of all types of natural calcareous habitat.

10. Coastal salt marshes and mud flats, whose limited extent is ecologically significant in providing the sole Connecticut habitat for many species of plants and animals and in being among the most productive ecosystems in the world.

11. Sand plains, supporting a desert-like scrub forest vegetation unique in Connecticut. Development and other human impacts have taken a heavy toll of this site type.

A major step to identify specific sites came with the New England Natural Areas Project coordinated by the New England Natural Resources Center and with the Connecticut Forest and Park Association serving as the local agent. During the 1971-1974 period, this study produced a computerized listing of more than 400 sites representing categories of geologic, biological, and soil type significance. Of these 400 sites, approximately 40 percent are

owned by various levels of government, private conservation organizations, and educational establishments. Another 12 percent are at least partially protected by these categories of ownership. The remaining 48 percent are controlled by private individuals and corporations and therefore receive no official protection. Furthermore, although at least half of these natural areas are at least partially in public, educational, or non-profit corporate ownership, most have not been dedicated as natural areas and therefore cannot be considered to be fully protected.

Although the natural area inventory, now in the custody of DEP, was a major accomplishment, it must be recognized as representing only the initial stage in a program to protect these natural areas. What is now required is a refinement and an updating of this inventory and a determination of action priorities, a task which should be undertaken by DEP in concert with private conservation organizations. The continuation of the Natural Areas Preserves Advisory Committee after January 1, 1979 is advisable to help carry out this function. Consideration should be given to the means for most effectively implementing this program.

In addition, the National Heritage Program proposed by the U.S. Heritage Conservation and Recreation Service may well provide the needed impetus in terms of administrative priority and funding to make an action program a reality. Nevertheless, considerable urgency is necessary because many of the currently unprotected unique natural areas could be destroyed or adversely affected.

CONCLUSION

Thanks to its long and rich history and highly varied landscape, Connecticut

indeed possesses a rich cultural and natural heritage. Furthermore, it is clear that the natural and the man-made components of this heritage are often highly interrelated, as might be expected in a relatively old landscape where man and land have had considerable time and opportunity to influence each other. Fortunately, the interrelationship of the two produced a generally attractive product, at least until the last 100 to 120 years. A major priority for Connecticut must now be to protect and in some cases restore traces of this inheritance which give the state much of its recognized quality of life.

Thus, a major undertaking of Connecticut's continuing SCORP planning program will be to inventory key elements of the state's natural heritage and to establish action priorities for the preservation of these heritage resources for future as well as present generations. Upon the implementation of the U.S. Department of Interior's Heritage Program and as funds become available under this program, a comprehensive statewide heritage program in Connecticut will be implemented as a complement to the existing SCORP program. Until such funds become available, the preservation of unique natural areas is a high priority in the State's acquisition program utilizing Land and Water Conservation Act funds. Similarly, the Restoration of Historic Assets Program of the Connecticut Department of Commerce and the Historic Commission will actively pursue the preservation of the state's historic landmarks and places.

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Population Segments Of Special Concern

POPULATION SEGMENTS OF SPECIAL CONCERN

As with other public social service programs, there has been increasing recognition that the outdoor recreation needs of certain segments of Connecticut's population are not adequately met, despite increased efforts made in the past five years to improve the level of recreational services. This problem is one of growing magnitude and increasing significance with respect to outdoor recreation planning in the state.

Those segments of the overall population of special concern with regard to limited available outdoor recreational opportunities include the state's urban and city residents, the elderly, the handicapped, and the economically disadvantaged. Resultant limited outdoor recreational participation is due primarily to differences and restrictions in such determinants as access, disposable income, and physical mobility.

METHODOLOGY

To identify and assess the outdoor recreational needs of the state's urban population, elderly, handicapped, and economically disadvantaged, a variety of information and data sources were utilized. A combination of mail survey and personal interviews were used to document specific needs as well as to gain an overall perspective. Constructive comments and recommendations in these areas of concern received during public informational meetings were also incorporated.

The outdoor recreational needs of Connecticut's central city residents were investigated by mail survey and by detailed personal interviews with parks and recreation administrators in 12 of the state's major cities. Cities included in this analysis were Bridgeport, Danbury, Hartford, Meriden,

Middletown, New Britain, New London, New Haven, Norwalk, Norwich, Stamford, and Waterbury. All are Connecticut's older cities. In addition, Danbury is one of the state's most rapidly growing cities. Response to the Municipal Needs and Preferences Survey of the state's 169 municipalities were received from seven of these cities and incorporated into this analysis. Danbury, Hartford, Meriden, Middletown, New Haven, Norwalk, and Waterbury responded to this mail survey. The mail questionnaire (Appendix E) included questions regarding the cities' outdoor recreation programs, their adequacies and inadequacies, present use of facilities, priority outdoor recreational needs, and problems presently confronting the city in providing outdoor recreation.

Input on the needs of the elderly with specific regard to outdoor recreation was solicited by personal interviews of public and private service and advocate organizations. Representatives from the following agencies and organizations were included in this sample: the State of Connecticut Department on Aging, Human Resources Services, Inc., the Connecticut Council of Senior Citizens, and CALENDAR House Senior Citizen Center. Active programs were the criteria for selection into the interview sample.

To gain insight into the outdoor recreational needs of the state's handicapped, four advocate and service organizations were personally interviewed. These include the State Board of Education, Services for the Blind, the Easter Seal Society for Crippled Children and Adults of Connecticut, the Connecticut Council of Organizations Serving the Deaf, and the Connecticut Association of Retarded Citizens. These organizations were selected due to their statewide representation and their active service and advocacy programs for the physically and mentally handicapped.

A similar procedure was followed as above to identify the outdoor recre-

ational needs of the economically disadvantaged. Two private organizations were interviewed in this regard, the National Association for the Advancement of Colored People (NAACP) and the Poor People's Federation. These interviews also provided insights into the needs of inner city residents and racial minorities.

NEEDS OF URBAN AREAS

The outdoor recreational needs of Connecticut's cities have historically been underserved. The limited recreational opportunities available to the urban segment of the state's population must be expanded in quantity and increased in quality. As of 1976, approximately one-third of Connecticut's total population lived in 12 of the major cities (Table VII-1).

The basis of these limited recreational opportunities is due, in part, to a shortage of urban open space for outdoor recreation in some urban areas, but primarily to the economic and social problems Connecticut's cities share with the nation's other cities. The majority of Connecticut's cities appear to have adequate park and recreational lands (Table VII-2) based on a suggested national outdoor recreation space standard of 10 acres per 1,000 population for urban areas.¹ In those cities somewhat lacking in recreational lands, additional open space lands of significant quantities suitable for outdoor recreation often do not exist and, therefore, the required land resource is not available to increase outdoor recreational opportunities. It is for these reasons that the state's cities must rely primarily on those facilities that currently exist to meet their immediate as well as short-term future recreational needs.

¹National Recreation and Park Association. Outdoor Recreation Space Standards. Washington, D.C. 1965.

From study of outdoor recreational services in 12 of Connecticut's major cities, a number of problem areas have emerged. The common element, and the basis of many related problems, is the limited financial capabilities of cities to provide adequate quality outdoor recreational opportunities to their residents. The financing of urban recreation is, at present, the crux of the outdoor recreational needs facing Connecticut's cities. Related components of this complex economic problem include the collapse of school-sponsored recreation in many cities, increasingly poor urban populations, aging existing facilities, municipal fiscal crises, budget cuts, inflation of labor and material costs, and vandalism.

Traditionally, municipal parks and recreational programs were supported predominantly by local appropriations. Since 1970, local budget support for outdoor recreation has generally declined in most cities in the nation.¹

For most major cities in Connecticut, per capita municipal expenditures in current dollars for parks and recreation have not changed significantly from fiscal year 1971-72 to 1976-77 (Table VII-3). Notable exceptions are the cities of Hartford and Danbury where per capita expenditures have decreased since 1971. What increases did occur over this six year period were generally small and failed to keep pace with inflation. The implicit price deflator for government services as published by the U.S. Department of Commerce, Survey of Current Business indicates that local government costs rose from 1972 (index = 100) to mid-1977 (index = 146.2) by 46.2 percent. Therefore, real recreation expenditures decreased from their 1971-72 levels (Table VII-4). Parks and recreation

¹National Parks and Recreation Association. Parks and Recreation August 1971, p. 20.

TABLE VII-1
 TWELVE MAJOR URBAN CITIES
 AND THEIR POPULATIONS^a

<u>CITY</u>	<u>ESTIMATED 1976 POPULATION</u>
Bridgeport	148,000
Hartford	147,000
New Haven	131,000
Waterbury	112,000
Stamford	107,000
Norwalk	80,300
New Britain	80,100
Danbury	57,700
Meriden	56,200
Norwich	44,500
Middletown	36,500
New London	30,700
	<hr/>
TOTAL	1,031,000
State	3,161,410

^aDepartment of Health, State of Connecticut. Estimated Populations in Connecticut as of July 1, 1977. Mimeograph.

TABLE VII-2
TOTAL ACREAGE OF MUNICIPALLY OWNED
OUTDOOR RECREATION LANDS WITHIN CITY LIMITS^a

<u>City</u>	<u>Total Acreage</u>	<u>Acres/1000 Population^b</u>
Meriden	2,208	39
Danbury	1,201	21
New Haven	2,239	17
Norwich	632	14
New Britain	901	11
Stamford	877	11
Norwalk	800	10
Bridgeport	1,365	9
Hartford	1,279	9
Waterbury	906	8
Middletown	268	7
New London	186	6
<hr/> Total		18,640

^aIncludes developed and undeveloped lands. Does not include public school sites. Base year 1978.

^bBased on 1977 population estimates.

budgets are, on the basis of real dollars, generally considered severely limiting by their administrators. Local budget support of recreation also decreased relative to general municipal expenditures (Table VII-5). As a result, in recent years, Connecticut's cities have increasingly had to search for other than local sources of funding, including state and federal.

The most immediate and highest priority needs delineated by the parks and recreation departments of Connecticut's cities are adequate funds to cover operations and maintenance costs, and funds for development of recreational facilities. Proper maintenance, rehabilitation, and the development of existing facilities and recreational land are the most viable means of increasing outdoor recreational opportunities in the state's cities in the short-term.

The ability of cities to maintain and operate their existing recreational facilities has decreased significantly. A number of Connecticut cities have had to lay off large portions of their maintenance force due to budget problems. For example, the City of Hartford's Parks and Recreation Department has lost, in the past four years, 25 percent of its maintenance force, while the City of Waterbury's park and recreation maintenance and operations personnel has been reduced by 22 percent since 1970. In addition, vandalism and litter contribute significantly to the increasing expense of park and facility maintenance. Maintenance of recreational facilities in some Connecticut cities is already heavily dependent on manpower funded through the U.S. Department of Labor's Comprehensive Employment and Training Act (CETA). All the parks and recreation programs in the 12 cities studied currently utilize CETA personnel for operations and maintenance. CETA personnel make up from 10 to 51 percent of the overall parks and recreation manpower in these cities. The fear of city parks and recreation administrators is what will happen when the CETA pro-

TABLE VII-3 PER CAPITA MUNICIPAL EXPENDITURES FOR PARKS AND RECREATION FOR
TWELVE CONNECTICUT CITIES 1971-1977^a

City	(Dollars)					
	FISCAL YEAR					
	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Norwich	2.5	6.6	2.6	5.0	5.0	4.7
New London	6.6	6.9	7.0	6.7	6.2	6.6
New Britain	8.3	6.5	6.4	8.1	7.5	7.2
Middletown	9.0	5.0	4.8	4.7	10.2	10.3
Meriden	6.9	6.5	7.4	9.0	7.4	NA ^b
Norwalk	7.8	8.0	8.5	8.0	9.0	9.6
Waterbury	NA	NA	NA	NA	11.0	10.9
New Haven	11.0	11.6	12.2	12.2	10.8	11.6
Bridgeport	11.4	11.6	12.7	13.4	11.9	13.1
Stamford	10.4	12.2	15.1	12.9	12.5	12.0
Hartford	16.6	18.3	18.3	20.0	11.8	16.6
Danbury	6.0	6.0	5.8	5.8	5.7	5.5

^aCompiled from Annual Municipal Audit Reports, State of Connecticut Tax Department, Municipal Division.

^bNA denotes data not available.

TABLE VII-4

REAL PER CAPITA MUNICIPAL EXPENDITURES FOR PARKS AND RECREATION FOR TWELVE
CONNECTICUT CITIES

<u>City</u>	<u>Fiscal Year 1971-72 Index 100</u>	<u>Fiscal Year 1976-77 Index 146.2</u>
Norwich	\$ 2.5	\$ 3.2
New London	6.6	4.5
New Britain	8.3	4.9
Middletown	9.0	7.0
Meriden	6.9	NA ¹
Norwalk	7.8	6.6
Waterbury	NA	7.5
New Haven	11.0	7.9
Bridgeport	11.4	9.0
Stamford	10.4	8.2
Hartford	16.6	11.4
Danbury	6.0	3.8

Source: U.S. Department of Commerce, Bureau of Economic Analysis,
Survey of Current Business, U.S. Government Printing Office,
Washington, D.C.

¹NA denotes data not available.

TABLE VII-5 PARKS AND RECREATION EXPENDITURES AS A PERCENTAGE OF GENERAL EXPENDITURES FOR TWELVE CONNECTICUT CITIES, 1971-1977^a

City	Fiscal Year					
	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Danbury	1.5%	1.4%	1.2%	1.2%	1.1%	1.0%
Middletown	2.5	1.3	1.1	1.0	2.0	1.9
New Britain	2.4	2.1	2.0	2.0	1.7	1.6
Bridgeport	2.7	2.6	2.5	2.4	2.1	2.2
Hartford	2.6	2.5	4.1	2.3	1.5	2.0
Meriden	1.9	1.7	1.7	1.9	1.5	NA ^b
New Haven	2.2	2.1	2.2	2.0	1.8	1.8
New London	1.7	1.7	1.6	1.5	1.4	1.4
Norwalk	1.7	1.7	1.7	1.5	1.8	1.8
Stamford	1.8	1.8	2.1	1.8	1.7	1.6
Waterbury	NA	NA	NA	NA	2.2	2.2
Norwich	0.8	1.4	0.7	1.3	1.3	1.2

^aCompiled from Annual Audit Reports, State of Connecticut Tax Department, Municipal Division.

^bNA denotes data not available.

gram ends. Federal funds from the Land and Water Conservation Act (LWCA) are not applicable to operations and maintenance costs.

Outdoor recreational opportunities in Connecticut's cities have over the years been restricted by the pressing need for development and rehabilitation funds. Most cities have open space and park lands with recreational potential in an underdeveloped state, and/or aging physical facilities in need of rehabilitation. These problems are particularly pressing in the older and inner city neighborhoods where recreational opportunities tend to be the most deficient. As of January 1, 1978, 2.25 million dollars, 16 percent of the total LWCA funds received since 1965, have been designated for municipal development projects. State enabling legislation originally limited LWCA moneys to land acquisition. No funds were available for development until 1972 when 10 percent of the State's apportionment was allocated for municipal development projects by the Connecticut General Assembly. In 1974 an additional five percent was authorized, and, in 1977, Public Act 77-548 mandated 25 percent with five percent left to the discretion of the Commissioner of the Department of Environmental Protection for development. While these moneys will do much to help alleviate the problem, they will not be adequate to meet all of the needs of our cities to develop facilities and rehabilitate existing facilities.

A number of other problems also face Connecticut's cities in providing outdoor recreation. The public school facilities in many cities which provided the primary or only neighborhood facility for recreation are inaccessible after school hours and on weekends. This is often due to the high cost of custodians and utilities, or due to a breakdown in cooperation between the city's board of education and parks and recreation department. This situation only aggravates the neighborhood recreational deficiencies in cities.

A second problem is that the lack of funds for recreational programs has been a constraint to a number of cities.

Another major concern deals with the urban watercourses. Although much progress has been made in improving the water quality of the state's rivers, pollution of urban waterways is a major problem, as is the lack of sufficient public access to urban waterways. Examples of such urban waterways include the Connecticut River in Hartford, the Yantic River in Norwich, the Willimantic River in Willimantic, and the Naugatuck River in Waterbury.

Specific outdoor recreational activities requiring additional facilities due to heavy use of present facilities do not differ significantly between Connecticut's cities and towns. Additional tennis courts, ballfields, and swimming capacity are generally needed. Most city parks and recreation departments would like to initiate other recreational activities and programs to avoid perpetuating present voids and unmet needs as well as to provide a variety of recreational opportunities. It should be remembered that recreational participation by individuals is, in part, a function of what facilities are available. Such "new" activities would include cultural events, passive outdoor recreational activities, and activities previously restricted in their association to specific socio-economic groups. The City of New Haven, for example, has found when tennis facilities were placed in a predominantly low income black neighborhood, use reached capacity despite the fact that tennis has historically been associated with white middle class communities. In planning such new activities, community input is essential.

Certain user considerations combine with shortages of urban open space and the financial difficulties of cities to restrict the outdoor recreational opportunities available to many city residents. Poor access and limited

discretionary income are especially restrictive to outdoor recreational participation.

With limited neighborhood recreational opportunities, public mass transportation for non-work purposes (generally inadequate or nonexistent) and the distance between state recreation areas and centers of population, access is most limiting to those who do not own an automobile. Connecticut residents without automobiles have been found to participate in outdoor recreational activities less than half as often as persons with automobiles.¹ Ownership of automobiles is slightly less prevalent in cities than the state overall (Appendix G). For the 12 Connecticut cities studied, registered passenger vehicle ownership in 1976 averaged 0.43 vehicles per person while the statewide per capita ratio was 0.49. Automobile ownership and operation is greatly determined by income and therefore beyond the limited economic means of the poor and the many elderly on fixed incomes. The least mobile of all are those people who, in addition to not owning an automobile, have difficulty fully utilizing public mass transit. This group of people would primarily include the elderly, handicapped, and economically disadvantaged.

The State's park facilities are resource-oriented, are not located in immediate proximity to urban areas, and are not served by regular public mass transit. Connecticut's State Parks are not generally accessible to most urban residents without automobiles.

The alleviation of some of the deficiencies of outdoor recreational opportunities in urban areas and cities should be approached by increasing user access and capturing the full potential of existing facilities. A number of possibilities could be employed.

Increasing mass transportation access to city and state facilities should be considered. Intra-city bus routes should include parks and other

¹Tri State Regional Planning Commission. Unpublished data on summer recreation use patterns. September 1976. See Appendix G.

recreational facilities. Servicing State parks in relative close proximity to urban areas with mass transit should be investigated. Existing State parks at which this may be a possibility would include Osbornedale, Indian Wells, West Rock, Hammonasset, and Wadsworth Falls.

If State parks are not available to city youth, as is generally the case, then to a certain extent, city youth can be brought to the parks as part of the Summer Recreation Transport Program administered by the Connecticut Department of Social Services. This program is funded by federal moneys provided by the Federal Reimbursement Program for Social Services (Title XX). During the summer of 1977, nearly 17,000 youths from 10 cities were provided 35,000 recreation days by busing to 22 state parks and recreation areas to which they would not normally have access. For this 1978 summer season, available funds have been tripled and will be made available to 31 cities and towns. Selection of eligible municipalities is based on need measured by the size of local welfare assistance roles.

At this time, however, the use of Title XX moneys to fund the Summer Recreation Transport Program is presently being reviewed in a comprehensive manner by Connecticut's Office of Policy and Management's Division of Management and Evaluation.

An attempt should be made to utilize the full recreational potential of facilities presently existing in Connecticut's cities. Facilities at public schools can be made available as neighborhood recreational facilities through the cooperation of city agencies. Development moneys are needed to develop additional facilities and to rehabilitate obsolete facilities. The 30 percent maximum development share of the State's Land and Water Conservation Act

apportionment established by statute should be reassessed in terms of its adequacy. Most major Connecticut cities suffer from a lack of operations and maintenance funds. At present the burden of these costs are a local responsibility. The use of Land and Water Conservation Act funds is not recommended for this purpose as it could result in expending the entire apportionment for the State, curtailing open space acquisition and development activities. Future needs of the state should not be entirely foresaken for those in the short-term.

Future new state facilities should be located in close proximity to urban population centers with access by mass transit where feasible and where a suitable resource base exists. Such facilities would be more accessible to those people without cars as well as meet the future needs of the overall urban population increasingly restricted in automobile travel by finite energy resources and the cost of such personal transportation.

As a final note, it should be recognized that the state's central city population includes those portions of the population which, due to income, access, or physical limitations, are severely restricted with regard to recreational opportunities. Such population segments include the elderly, the handicapped, and the economically disadvantaged. Meeting the recreational needs of our cities would significantly increase the opportunities to those groups in our population which are of increasing concern as well as the major proportion of the state's general citizenry.

THE ELDERLY

The elderly represent a very significant portion of our population. According to the 1970 U.S. Census, persons 65 years of age or older in

Connecticut numbered 288,900 or approximately 9.5 percent of the state's total population. In addition, the elderly are the most rapidly growing population group nationally and in Connecticut (Table VII-6). As of 1975, estimates show the elderly now representing about 11 percent of the state's overall population. This percentage is expected to increase to over 14 percent by 1985.

TABLE VII-6
THE PROPORTION OF THE CONNECTICUT POPULATION
65 YEARS OR OLDER, 1960-1985

<u>Year</u>	<u>Number</u>	<u>Percent of Total State Population</u>
1960 ^a	242,615	9.6
1970 ^a	288,908	9.5
1975 ^b	342,300	10.9
1980 ^b	405,800	12.6
1985 ^b	476,600	14.3

^aU.S. Census estimates.

^bDepartment of Planning and Energy Policy, State of Connecticut.
Connecticut Population Projections by Age and Sex 1975-2000. September 1975.

Age has been well documented as a primary determinant of outdoor recreation demand and participation. The elderly generally have a large recreation demand due to their great amount of leisure time, but their rate of participation is significantly lower than younger age groups for most outdoor activities. The elderly basically have the same open space and many of the same outdoor recreational facility needs as the younger segment of the popula-

tion. Most elderly persons prefer the more passive forms of outdoor recreation, particularly near sites of activity that can be observed. Such areas should include seating facilities as part of city parks and commons, athletic fields, pedestrian malls, beaches, and downtown areas. As well as being spectators, the elderly like to be entertained. This can be an important consideration to a successful program or facility. However, the elderly also can, and do, participate in many forms of active recreation as well as passive recreation. Activities of interest to the elderly include lawn bowling, bocci, horseshoes, golf, walking, fishing and swimming.

In Connecticut, the elderly depend primarily on the 120 local senior citizen programs and centers. Organized recreation programs, facilities, and bus trips are regularly attended and often are utilized to draw people for human services programs. A large portion of the state's elderly population is, however, not served by such programs or by municipal recreation programs.

The outdoor recreational opportunities presently available to the elderly in Connecticut are limited. Their participation in outdoor recreation is frequently severely restricted not only by health problems but by a fixed, low income and by access constraints. Low discretionary income restricts the majority of persons over 65 from participating in activities requiring expensive capital expenditures or investments, such as boating or travelling. More important is the contribution of financial problems to limiting the mobility of elderly persons. Automobile non-ownership, the automobile orientation of most state and many municipal outdoor recreation areas, and inadequacies in public mass transit for non-work travel combine to make inaccessibility a primary barrier to the outdoor recreational opportunities available to the elderly. In addition, many elderly residents of cities do not take advantage of what outdoor recreational facilities are available due to a lack of security and fear of personal harm.

THE HANDICAPPED

The handicapped in Connecticut have, until recently, been an unrecognized minority. Handicapped persons have often been subjected to a variety of forms of discrimination with regard to their opportunities for employment, education, and community services. As declared by the 1977 Connecticut State Legislature, "the State of Connecticut has a special responsibility for the care, treatment, education, rehabilitation of, and advocacy for its handicapped citizens."¹ As defined by the U.S. Congress, a person that is handicapped is "any person who has a physical or mental impairment which substantially limits one or more of that person's major life activities."² Handicapping conditions, as determined by the U.S. Attorney General, include alcoholism, cancer, cerebral palsey, deafness, diabetes, drug addiction, epilepsy, heart disease, mental illness, mental retardation, multiple sclerosis, muscular dystrophy, orthopedic impairments, speech or sight impairments, and perceptual impairments.

A major difficulty in determining the outdoor recreational needs of the handicapped is the lack of statewide census data on the physically and mentally impaired. However, in the absence of such a census, U.S. Department of Health, Education, and Welfare standards can be used as an estimate for the number of handicapped in Connecticut (Appendix G). Utilizing these standards, the handicapped approximate 12 percent of the state's overall population.³

The handicapped have the same basic open space and recreational requirements, and receive the same psychological benefits as the rest of the population. However, most physical and mental impairments, at present, seriously

¹State of Connecticut, Public Act No. 77-589, An Act Concerning a Protection and Advocacy System for the Handicapped, July 1, 1977.

²U.S. Dept. of Health, Education and Welfare. "Nondiscrimination On Basis of Handicap," Federal Register. Sec. 84.3, May 4, 1977.

³Does not include alcoholism or drug addiction.

constrain the outdoor recreational opportunities of the handicapped as a result of access restrictions to recreational facilities or programs. There are two phases to this access problem. First, many handicapped may have no means of transportation to the facility due to their impairment. Secondly, the handicapped, especially those with physical impairments, have special outdoor recreational facility needs. Recreational facilities, as with most other facilities, were designed prior to 1968 without use by the handicapped in mind and therefore have architectural barriers to unaided use by handicapped persons. Such architectural barriers prevent persons with physical impairments from using most existing recreational sites and their support facilities such as sanitary facilities.

The Architectural Barriers Act of 1968 (Public Law 90-480) and Section 504 of the Rehabilitation Act of 1973 (Public Law 93-112) clearly define the access rights of the handicapped. The Rehabilitation Act provides that "no otherwise qualified handicapped individual in the United States shall, solely by reason of his handicap, be excluded from the participation in....any program or activity receiving federal financial assistance." Under these laws the accessibility to such community services as outdoor recreation by handicapped persons is insured.

All new recreational facilities receiving federal funds must be designed and constructed barrier-free and accessible to the handicapped. Existing facilities requiring structural changes will also need to be made accessible. The U.S. Department of the Interior (DOI) has not yet promulgated regulations under Section 504 of the Rehabilitation Act applicable to all recipients of DOI funds or specified when such structural changes must be completed. Such

regulations are currently in draft form.¹ Within six months of the effective date of these Section 504 regulations, a transition plan must be completed, identifying physical obstacles at existing facilities and the methods that will be used to make the facilities accessible. Structural changes to existing facilities will need to be completed within three years of passage of the draft regulations. All state and municipal outdoor recreational facilities and programs which received financial assistance from the Land and Water Conservation Act, Dingell/Johnson funds, or Pittman/Robinson funds must meet these regulatory requirements. Recipients of other federal moneys including Community Block Grants and Department of Housing and Urban Development's former Open Space and Beautification funds will, in the near future, be required to comply with similar regulations.

In addition to the accessibility needs of the handicapped, under some circumstances, and for certain activities, there is a need for outdoor recreational facilities and programs separate and specifically for the use of the severely handicapped. Although the major emphasis should be to integrate the handicapped into outdoor recreational facilities and programs for the general public, separation is sometimes necessary. Such cases would include programs where very specialized supervision or facility modifications are required, for example, a swimming program for amputees or basketball for the blind. Camp Harkness, operated by the State of Connecticut's Department of Mental Retardation is such a facility. It currently serves mentally retarded, blind, and persons impaired by cerebral palsy. The camp, however, is only useable during the warmer months of the year and therefore has a limited serving capacity. The services of Camp Harkness and similar specialized municipal pro-

¹Attorney Advisor, Office of the Secretary, U.S. Department of the Interior, Personal Communication, May 25, 1978.

grams are much needed as a complement to integrating the handicapped into other general recreational programs and facilities.

Many private organizations provide specialized recreational facilities for the handicapped. In Connecticut, the Hemlocks Outdoor Education Center is a noteworthy example. Owned and operated by the Connecticut Easter Seal Society, the Hemlocks Outdoor Education Center is for the use of all handicapped statewide. Its facilities include a specially adapted indoor pool, a 20 acre lake, year-round and seasonal housing, accessible paths, boating, crafts and educational programs. Like other such private facilities, it is supported by private donations from the citizens of Connecticut.

To begin to meet the outdoor recreational needs of the handicapped citizens of Connecticut, as well as to meet the requirements of the federal law, will require a major effort in a number of directions on the part of the State and its municipalities. Foremost, existing architectural barriers must be eliminated. State and municipal outdoor recreational facilities need to be inspected and inventoried for existing architectural barriers. Means by which the programs or activities of that facility can be made accessible should be investigated. Where necessary, structural modifications must be made pursuant to the Rehabilitation Act.

Secondly, efforts should be initiated to integrate the handicapped into municipal recreational programs. The town of Branford provides a model program of this type worthy of study by other municipalities. Utilizing town and community organizations, clubs, and volunteers, a wide and varied program for all town residents from toddlers to the handicapped and elderly is provided. As part of the overall program, the more specific access needs of the handicapped

are met through such projects as driving classes for the handicapped and Project Sunshine.

Furthermore, the need for specialized outdoor recreational programs for the severely handicapped should be investigated by the municipalities. Camp Harkness should be developed for greater utilization and to service people with a variety of physical and mental handicaps.

ECONOMICALLY DISADVANTAGED

Although Connecticut is a relatively affluent state, a sizeable portion of the state's population is still disadvantaged economically. According to U.S. Census statistics, 84,262 families (11.0 percent) had incomes in 1969 less than \$5,000. The economically disadvantaged in Connecticut include many inner city residents, many of the elderly, and a large number of blacks and persons of Puerto Rican origin. Connecticut's economically disadvantaged are, however, not restricted solely to the inner cities. For example, five to ten percent of all families in the Quinebaug River valley in rural, eastern Connecticut have incomes below the poverty level.

Income is a primary factor in determining the degree and form of participation in outdoor recreation. The outdoor recreational opportunities of the economically disadvantaged are severely restricted by little or no disposable income with which to pay the transportation, equipment, and other costs associated with outdoor recreation. In addition, income is closely related to car ownership. In light of the lack of public mass transit service to most state parks and many city and town facilities, non-ownership of an automobile curtails access to outdoor recreational facilities.

Currently, public and private organizations' busing programs are being utilized as a means to provide access and to somewhat alleviate disparities

due to income in outdoor recreational opportunities. As previously mentioned, such a program under the Connecticut Department of Social Services for city youth will be significantly expanded as a partial, short-term measure.

Revitalization of parks and recreation programs in the inner city neighborhoods would help to rectify the present situation by greatly increasing the accessibility of outdoor recreational opportunities to the economically disadvantaged.

Goals, Policies and Recommendations

GOALS, POLICIES, RECOMMENDATIONS AND PRIORITIES
FOR MEETING OUTDOOR RECREATION NEEDS

GOALS

Major Recreation Development and Conservation Goals: The Department of Environmental Protection is mandated by the General Statutes to protect and enhance the environment by acting on many fronts. There are five general goals for the Department in carrying out its responsibilities for recreation and natural resources.

1. To provide an adequate supply and variety of open space and recreational opportunity for the citizens of Connecticut -

- a. Acquisition and leasing of land for recreational purposes.
- b. Development and operation of a broad range of recreational areas.
Major guidelines for such action include: (1) variety, (2) adequacy of opportunity, (3) degree of access to the population to be served, and (4) popular demand.
- c. Management and enhancement of the fish and wildlife resources of the state and regulation of the recreational activities dependent upon these resources.
- d. Grant-in-aid assistance to municipalities to encourage expansion of local recreational opportunity.
- e. Administration of the forestland section of P.A. #490 (G.S. 12-107d and G.S. 12-96) to encourage the preservation of privately-owned open space through property tax relief on designated properties.
- f. Encourage the use of privately-owned land for recreational use through publicizing Public Act 249, which offers relief from legal

liability for injuries suffered on land open to the public without fee.

- g. Encourage public access to the waters of Long Island Sound and recreational opportunities within the coastal area that are consistent with sound resource conservation procedures and constitutionally protected rights of private property owners (The Coastal Management Act, P.A. 78-152).

2. To protect and enhance the scenic and cultural character of the state - Implementation of this goal rests primarily with the Department of Environmental Protection, although the Connecticut Historical Commission will remain the main agent for historic preservation through its promotion of historic districts and inventory of historic structures and sites. Within the Department of Environmental Protection, the primary preservation functions are as follows:

- a. Acquisition and maintenance of key areas or site types. Chief among these are: (1) scenic and historic areas, (2) unique natural areas of botanical or geological interest, and (3) ecologically key site types such as floodplains and inland and tidal wetlands which may also serve recreational, water resource management, and environmental-health-related functions.
- b. Regulation of floodplains and inland and tidal wetlands which combine scenic preservation values with their primary public health and hydrologic functions.
- c. Promotion of preservation action by local government and by the private sector through coordination and public informational activity

with conservation commissions, private conservation groups, and other concerned organizations.

3. To protect and foster the optimum use of Connecticut's water resources - Because water remains a critical factor controlling the number and distribution of people and human activity, its protection and management is a main function for society. Although the State Department of Health retains certain responsibilities relating to the protection of public water supplies, most water-related statutory authority in Connecticut rests with the Department of Environmental Protection. Major functions include:
 - a. Planning for the wise development, allocation, and use of the state's water resources. The Inter-Agency Water Resources Planning Board study, in which the Department of Environmental Protection participates, is part of the State Plan of Conservation and Development.
 - b. Establishment of minimum flow regulations for insuring maintenance of cold water fisheries in waters stocked by the state.
 - c. Cooperation in water company lands studies to insure protection of critical water supply lands and formulation of surplus lands policies.
 - d. Improvement and preservation of water quality through the state and federal water pollution control programs.

4. To protect and foster the optimum use of Connecticut's marine resources - Recent years have seen a rapidly growing popular interest in the coastal and offshore resources of Connecticut. Although many of the problems and opportunities of Long Island Sound are comparable to those found on land, the unique character of the marine habitat requires it to be considered

separately. Major roles played by the Department of Environmental Protection include:

- a. Management of marine fauna to allow a commercial and recreational harvest commensurate with the maintenance of population stocks.
- b. Regulation and abatement to the maximum extent of pollution and waste disposal in marine waters.
- c. Regulation of offshore mineral extraction.
- d. Involvement in the planning and regulation of recreational boating in marine, estuarine and related navigable waters.
- e. Involvement in the planning and regulation of the use of marine and related coastal resources and areas.
- f. Encouragement of local planning and regulation of coastal resources.
- 5. To protect and foster the optimum use of Connecticut's other natural resources

- In addition to major roles in the management of water and marine resources, the Department of Environmental Protection has certain responsibilities involving several natural resource-based industries. Among these are:

- a. To protect and enhance the proper use of Connecticut's forest resources. The Department of Environmental Protection is involved in the following efforts:
 - i. Encouraging the maintenance of privately-owned forestland through administration of the forestry section of Public Act #490 (G.S. 12-107d) which insures use value assessment for property taxation of forest properties and G.S. 12-96 which allows certification of forestlands for assessment of property values.

- ii. Providing the basis for a permanent state forest products industry through its ownership and management of extensive state forest lands.
 - iii. Providing technical forestry assistance to private forest-land owners.
 - iv. Administering and coordinating a statewide forest fire control system.
 - v. Providing assistance in forest insect pest control.
 - vi. Continue multiple use forest management on State lands.
- b. To assist in preserving Connecticut's agricultural base and ensure wise use of its mineral resources. The Department of Environmental Protection's main involvement with agriculture is to encourage use of Public Act #490 differential property tax assessments to prevent forced land sales due to taxation. P.A. 78-232 establishes the Department's role in assessing the value of agricultural lands on which development rights are to be acquired by the Department of Agriculture.
- c. Mineral extraction from land and waters of the state is governed by the Department through its water pollution abatement laws and the permit requirements for dredge and fill operations administered by the Water Resources Unit.
- d. To assist Connecticut's indigenous Indian Tribal Councils in administering lands held in trust by the State to insure maintenance of the tribes' rights to utilize such lands compatible with their natural resources values.

POLICIES AND RECOMMENDATIONSSTATE ACQUISITION POLICIES AND RECOMMENDATIONSTO MEET RECREATION DEFICIENCIES

The enumerated five goals present planners with a difficult challenge in determining how best to fulfill their responsibilities. The broad nature of these charges is indicative of the need to provide flexibility within a planning document as well as coming to grips with critical resource issues. Connecticut's recreational program must involve a mix of state acquisition and development projects which will serve its citizens. The following guide to action highlights these critical needs.

1. Water Access - Water-based recreation is the most critical recreational resource in terms of both demand for activities and the deficiency of supply. Therefore, the State should take the following actions:

- a. Identify and acquire through purchase, lease or easements, river and stream corridors of significant scenic and recreational value to protect them from development and to secure for the public some of the return from the major public investment in water pollution control. Acquisition should include lands, dams, bottom and flowage rights for access to water bodies.

State government (DEP) should identify and define stream corridors worthy of preservation efforts, work cooperatively with local interests including municipalities and private conservation organizations to develop proposed management plans, acquire appropriate lands for public access, and encourage actions by municipalities to protect from development such stream corridors and to acquire

additional lands for special space and recreational uses.

Particular attention should be directed toward acquisition of the Scantic River corridor and expansion of public access to and ownership of the Farmington River. Emphasis should also be placed on other cold water rivers and streams with the potential for anadromous fisheries management.

- b. Acquire coastal beach access and sites on inland water bodies offering a potential for swimming opportunity wherever they become available. This could be done primarily by DEP, utilizing federal grant-in-aid moneys together with matching dollars authorized by the legislature. However, wherever municipal acquisition action may be more appropriate it should be encouraged.
- c. Acquisition and development of water-oriented inland recreational opportunities, especially access to large water bodies which can accommodate swimming and boating.
- d. To provide fishing and boating opportunities, the State should continue to pursue its goal to acquire and develop a publically owned boat-launching site on every major water body in Connecticut, in every town along the coast and along navigable streams such as the Connecticut River. This program is in conformance with recommendations of the Coastal Area Management program for the coastal region. The construction of fishing piers in marine waters can create significant additional water access to meet this segment of recreation demand.
- e. Provide additional public hunting access through expanded acquisition programs of key land types. Important land types include

major inland wetlands, tidal wetlands, floodplains of larger rivers such as the Connecticut and Farmington Rivers, and mixed farm-forest land in the eastern and western uplands, both as desirable wildlife habitat and as a buffer to wetland holdings.

Management of farmlands could significantly increase wildlife populations and habitat. Wildlife habitat improvement as an integral part of state forest management should be increased through additional program funding.

- f. The State should carefully review all potential water company surplus lands and assess their recreational potential.

While the amount of acreage which will be declared surplus is unknown at this time, there is likely to be insufficient funds to acquire major portions of these surplus lands for retention solely as open space buffers against development. Therefore, alternative programs should be explored by the State and local governments to control development while retaining the lands with greatest recreational potential.

Of particular importance for acquisition consideration are those smaller reservoirs which might be abandoned as water utility companies convert to ground water sources.

- g. Coastal lands accessible to the public are very limited. As recommended by the Coastal Area Management program, the Department of Environmental Protection, the Plan of Conservation and Development, and the Conservation and Development Policies Plan Proposed Revision of 1979, increasing access to the shoreline is of the highest priority. Specific acquisitions recommended include offshore islands, tidal

wetlands of sufficient size to provide hunting opportunities and which can be managed for shore birds and waterfowl, and rights-of-way to gain access to Long Island Sound and its estuaries.

2. Acquisitions to Serve the Needs of Urban Areas and Population Centers -

The State has a special obligation to provide recreational opportunities within a reasonable proximity to population centers.

- a. The State Conservation and Development Policies Plan Proposed Revision of 1979 places emphasis on concentrating development in urban centers, urban conservation areas and urban growth centers and providing the necessary supporting services. The Department's survey of inland state park users established that between 70-90 percent of users lived less than 1/2 hour distance or 20 miles from the site. State acquisitions policy must pay particular attention to this factor when locating or acquiring new facilities.
 - b. Key sites for acquisition are riverbanks and coastal lands in urban areas for recreation and aesthetic purposes and ridges or natural topographic breaks as discussed in detail in the Green Land document, especially in urban areas where their usefulness will be greatest.
 - c. Where smaller communities are limited in their ability to acquire suitable recreational lands because of State land ownership, leasing parcels of land for recreational use to the communities should be considered when consistent with the State's management goals.
3. Land Areas of Special Concern - Certain land areas present unique

opportunities to expand outdoor recreation options and maintain natural

qualities for their scientific, educational and resource values.

Among the more important targets for acquisition funding are:

- a. Environmental corridors for trail-oriented activities. In recent years, the rapid expansion of trail-oriented recreation has greatly increased interest in such environmental corridors or "linear parks" as seen with the Appalachian Trail or the proposed Route Seven Linear Park between the towns of New Milford and Norwalk.

Bikeways isolated from automotive traffic are a vastly under-developed recreational resource. The Department of Environmental Protection and the Connecticut Department of Transportation must increase efforts to establish bikeways. Abandoned railroad and trolley rights-of-way and interceptor sewer lines are potential corridors. The U.S. Environmental Protection Agency's Federal Water Quality legislation makes provisions for including recreation as a complementary land use when sewage treatment plants and interceptor sewers are constructed.

Pressures upon the Appalachian Trail and Blue Trails System resulting from increased demand, create a special management and acquisition problem. Insofar as possible, cooperative landowner relationships should be maintained and strengthened. However, acquisition of key parcels as provided for under S.A. 77-47 should be pursued to provide a continuous, functioning trail system.

Trail corridors should be protected such that the natural integrity of the corridor and its recreational use are insured. Hiking, horseback riding, and cross-country skiing trails deserve special

attention. Special attention should also be devoted to the location of snowmobile and trail bike trails to minimize noise and disruption of landowners and other recreation groups.

- b. Natural areas including critical wildlife habitats. An important aspect of preserving Connecticut's environmental quality is maintaining diversity of flora and fauna for their scientific, educational and natural values. Sites identified by the State's Natural Areas Inventory are a focus of considerable attention by both public agencies and private conservation groups. A program of planned acquisition of threatened sites for preservation through conservation easements and other land use control techniques, including special zoning restrictions at the local government level, must continue to be a state priority. Habitats for rare and endangered species or unique wildlife values, which are not presently included in the natural areas inventory, should also receive acquisition funding. These habitats include such examples as heron rookeries and bird nesting areas on offshore islands. Areas close to population centers which may serve as a natural laboratory for educational purposes have a unique role which should receive attention by both the State and local governments when future acquisitions are considered.
- c. Miscellaneous properties affecting management capability on public recreational facilities. A growing management problem relates to the so-called "inholding" or "nuisance" property. Located within or along the border of a public recreational facility, such privately-

held tracts prohibit the development and implementation of plans to utilize and control effectively the use of such areas. Thus, attention should be given to acquiring such problem parcels whenever they become available.

4. Recommendations for Land Acquisition Assistance - Because land acquisition presents particular difficulties with respect to the timing of land sales and the availability of funding, special consideration should be given to programs which can assist the Department in carrying out its goals. The following items are recommendations contained within the proposed State Conservation and Development Policies Plan Proposed Revision of 1979 and/or Coastal Area Management program and are endorsed by the Department of Environmental Protection.

- a. Establishment of a state first option to purchase areas of highest coastal water-based recreational potential.
- b. Establishment of a funding procedure to allow timely exercise of purchase options when appropriate, especially for major water-courses and for shorefront properties following natural disasters.
- c. Incorporate provisions for public management and resource development with sale or lease-back for uses compatible with environmental and public resource needs.
- d. Maximize utilization of private land gifts as a source of State and local matching funds.
- e. Establish a special project fund to acquire large-scale projects which are beyond the fiscal capacity of the regular state action program and whose preservation may require prompt action by the

State. Federal legislation providing acquisition funds for the State on Long Island Sound should be supported. Additional federal assistance for acquisition is especially warranted since there are almost no federal lands within the State of Connecticut available for recreation.

- f. Provision of State matching funds for shorefront access planning under Section 315(2) of the Coastal Zone Management Act of 1972.
- g. Continued provision of funds to conduct title searches, land surveys, and incidental expenses associated with the State's receiving private land gifts.

MANAGEMENT AND DEVELOPMENT OF STATE FACILITIES

The Department of Environmental Protection's Division of Conservation and Preservation has the responsibility for managing land owned by the State for State parks, forests, wildlife areas, boating and other intensive and extensive recreational activities. Operation and maintenance is a primary factor in supplying recreational services to the public. Trash removal, road maintenance, equipment replacement, sanitary facilities servicing and other costs have increased under the inflationary conditions of the general economy. Increased pressures on state-owned facilities resulting from new population growth and the increasing numbers of young adults who utilize recreational services most actively create additional burdens on the State system to provide staff for supervision and operating functions.

Information gathered from the Regional Planning Agencies' meetings on SCORP indicate that the State should devote more attention to the development

of existing State lands to meet recreation demands. The development of new recreational facilities will require increased funding of the Division of Conservation and Preservation for operating and maintenance. Under existing funding levels, there has been a noted deterioration in the quality of some facilities and insufficient attention devoted to certain lands managed by the Department.

While deficiencies are noted in every recreational activity, the SCORP planning process has identified certain development needs which should receive priority attention:

1. Rehabilitation of State Facilities - In the course of the public informational meetings held with regard to the current update of SCORP, the quality of Connecticut's state parks and recreation areas and their state of disrepair was criticized by municipal officials, members of the general public, and recreation-user groups. Complaints to DEP by users concerning dirty conditions, broken facilities, and generally deteriorating conditions have increased significantly in the last several years. Deferred and inadequate maintenance due to a lack of personnel and operation and maintenance funds has resulted in a decrease in the capacity and the quality of many state recreational facilities.

As discussed in Chapter VII, the State's existing recreational facilities must be made accessible to the handicapped within three years of promulgation of regulations by the U.S. Department of the Interior pursuant to Section 504 of the Rehabilitation Act of 1973. Since such regulations are presently in final draft form, this deadline can be expected to fall in 1981 or 1982.

To insure that existing facilities are utilized to their maximum potential while providing a quality recreation experience, and to provide for the

accessibility of the handicapped to existing facilities, a major rehabilitation program of Connecticut's park and recreational facilities is required. Priority elements of this program include:

- a. Pursuant to the requirements of Section 504 of the Rehabilitation Act of 1973, and upon completion of an inventory identifying architectural barriers to the handicapped in existing state recreational facilities, structural changes to make these areas barrier-free need to be initiated immediately. The cost of these structural changes will be substantial. Due to current commitments of limited LWCA funds extending beyond 1982, special moneys will need to be appropriated to meet this need of the handicapped and the requirements of the federal law.
- b. On an activity system basis, those areas requiring rehabilitation are the State's campgrounds, bathing areas, picnicking areas, and hiking trails. The physical plants for these activities are often obsolete and/or in need of extensive repairs. Physical facilities in particular need of rehabilitation are the sanitary facilities, picnic tables, fireplaces, and picnic shelters at State camping, swimming, and picnicking areas. Hiking trails, due to a lack of maintenance, are badly eroded and require extensive work if they are to remain in use.
- c. The cost of rehabilitation of the State's park and recreational areas will be great. Prevention of the need for similar costly programs in the future will require a commitment on the part of the State of Connecticut to maintain a quality State park system. It is recommended such a commitment be made and implemented with

adequate operations and maintenance funds.

- d. Management of State lands for multiple purposes should be supported to increase the ability of the existing State land holdings to meet recreational needs. This objective is also dependent upon additional state commitment to providing additional personnel and operating and maintenance funds. For example, the development of new access roads and game habitat improvement within State land holdings could encourage additional recreational activity.

2. Inland Swimming and Related Facilities - As indicated in Chapter IV, many existing State inland swimming facilities are not able to meet the intensive demands placed on them because of water quality deterioration and lack of available expansion capability.

- a. State development funds should be devoted to expansion of facilities on water bodies which can accommodate growth to immediately increase capacity.
- b. State lands bordering large water bodies and new land acquisitions on suitably-sized water bodies should receive development funding on a priority basis.
- c. In some regions of the state there will continue to be a lack of natural water bodies with conditions suitable for swimming. The Capitol and Central Connecticut Planning Regions, with the largest swimming capacity deficiency, are representative of the situation where construction of Olympic-size pools in natural settings should be considered. This type of facility can increase the attractiveness of other inland State recreation areas and meet some urban

area needs.

- d. The Department's study of inland park user pattern indicates the majority of people utilizing inland parks are drawn from an area of 1/2 hour travel distance or 20 miles. Location of new swimming pools should consider this factor in relation to meeting urban area needs.
- e. Diversion pools have major operating problems and have water quality difficulties associated with existing inland small water bodies. Therefore, the Department should not invest funds in this type of facility unless a thorough consideration is given to the long-range water quality outlook on the watershed and water supply system.

3. Coastal Swimming Facilities - Connecticut's SCORP documents over the past 15 years have consistently emphasized the need to expand coastal swimming opportunities. The Rocky Neck, Hammonasset and Sherwood Island State Parks are truly statewide facilities drawing people from all parts of the state as well as out-of-state tourists.

- a. Because of the attractiveness of Long Island Sound and the limited public ownership of coastal land, the State should concentrate its development funds on expanding and upgrading the recreation potential of its existing coastal swimming beaches.
- b. Expansion of Rocky Neck State Park made possible by beach enrichment from offshore sand deposits will add to the user capacity and improve the beach experience by increasing the square footage of beach area per person. Combined with new sanitary facilities

capacity, correction of the Bride Brook channel and additional parking facilities, more than 5,000 additional users can be accommodated on peak days.

- c. The proposed Silver Sands State Park in Milford has an estimated 10,000 user day capacity and represents the major opportunity for the State to provide new coastal recreation. The \$16 million anticipated initial cost of the project for landfill covering and contouring of the land and beach area will require special state expenditures and a careful phasing of project costs to avoid allocating all LWCA funds to a single project. Additional funds will be required for park development.
- d. The Coastal Area Management program recommends that "The feasibility of reusing current state owned non-recreational coastal lands for recreation should be determined." The Department should make a thorough evaluation of the potential of all State owned coastal lands to increase recreational usage especially in providing swimming capacity.

4. Boating - The growing participation in boating activities by the public has increased the pressures on the available resources. In order to maximize the potential for supplying services from available funding sources it is recommended that:

- a. Boat launching areas on major inland water bodies and Long Island Sound should be funded.
- b. The Department should develop existing sites acquired for boat launching areas and rehabilitate sites as its first priority in

meeting demand.

- c. Facilities development along major rivers to meet the needs of recreational boating should be initiated. At a minimum, picnic sites, trash barrels and sanitary facilities accessible to river users are prerequisites for proper management of this growing segment of recreational demand. Facilities for overnight canoe trips would provide more variety in the recreational experience and possibly alleviate a growing problem of unauthorized camping on private lands which results in landowner conflicts and posting against trespassing.
 - d. Increased boating on river systems has resulted in conflicts between river user groups and landowners. The State should initiate studies on how conflicts might be resolved through management programs, scheduling of major boating events or other approaches. Legislative initiative may be required to enable the Department of Environmental Protection to exercise authority in these areas and to provide the personnel and budget required to undertake these new responsibilities.
 - e. The Department should make considerable effort to build in recreational facilities in conjunction with the projects developed under the Federal Water Pollution Control Act. The locations of sewage treatment plants and associated interceptor sewers can serve as boat launching sites and fishing access points.
5. Camping - In recognition of the historic division of responsibility between government and the private sector in providing camping services,

the Department should develop and manage public camping areas primarily to provide only a basic level of services in a largely natural setting.

- a. Connecticut State Parks provide very limited numbers of camp sites which customarily are booked several weeks in advance of the season. The Department should undertake to develop new campsites in suitable locations on existing State lands and expand available sites where feasible.
- b. Primitive campsites along trails for backpackers and others desiring a semi-wilderness experience are almost non-existent in Connecticut. Such facilities present supervision and maintenance problems which can only be accommodated with additional personnel and equipment.

6. Recreational Pathways

a. Non-motorized

Whether used for the purpose of improving personal health, nature studies or aesthetic enjoyment, recreational pathways are key resources for expanding public outdoor recreation. Hiking, cross-country skiing and bicycling provide low-cost outdoor recreational experiences within the budgetary means of most of the population.

- i. Bikeways isolated from automotive traffic represent the greatest pathway deficiency identified by the Department's studies. The Departments of Transportation and Environmental Protection should develop one or more bikeways during the next five years.
- ii. As a general rule, bikeways should be located within metropolitan areas and take advantage of natural settings wherever possible.
- iii. The Department should investigate all opportunities to develop

recreational pathways in conjunction with the Federal Water Pollution Control Act program. Easements for interceptor sewer lines could be combined with easements on these properties for trail recreation. Coordination between the Divisions of Conservation and Preservation and Environmental Quality to develop dual purpose projects on an ongoing basis is advisable.

- iv. Non-motorized trail uses can be compatible and pathways should be managed and designed for multiple-use.
- v. Creation and development of new hiking trails to interconnect with and become part of the existing Blue Trails System with special consideration given to replacing missing links in the existing trail system and to connecting metropolitan areas with regional trail systems is also a need identified by the SCORP planning process and should be a guideline in any acquisitions for trails.

b. Motorized

The growth of the off-road vehicles industry and utilization of snow-mobiles, trail bikes and all-terrain vehicles by segments of the population have placed new demands on the State for specialized trails. Motorized trail activities are generally conflicting with other trail user groups and require special consideration of soil erosion, noise, wildlife disruption and potential for trespassing on private lands.

- i. Separation of motorized activities from trails utilized by other groups is advisable.

- ii. Connecticut's snow cover conditions limit the recreational potential for snowmobiles. The development of longer trail segments of 25 miles or so could increase enjoyment of users during the season.
- iii. Establishment of linear trail bike pathways of 25 miles or so would contribute to user enjoyment and could disperse rider concentrations, alleviating area disruptions.
- iv. The establishment of additional motorized vehicle trails must be based upon a thorough evaluation of operation and maintenance problems.

7. Specialized Facilities - The SCORP public hearings have indicated there are deficiencies in meeting the recreational needs of significant groups of outdoor recreation participants.

- a. The State does not provide an opportunity for organized groups to participate in horseback riding events. A State facility with riding rings and related structures combined with horse trails should be developed. Such a facility could be a significant tourist attraction as well as alleviating deficiencies in recreation supply.
- b. Recreational firearms shooters and hunters are lacking in suitable public facilities. Firearms safety considerations and recreational demand require the development of at least one major large bore rifle and firearms facility. In addition, several smaller sighting in and shotgun practice ranges should be developed to meet regional needs.
- c. The Department, in cooperation with other State agencies and private organizations, should consider additional facilities development

for handicapped individuals and methods of improving activities participation. The Connecticut Department of Transportation and the DEP should consider expansion of services which might improve use of State parks by handicapped persons as well as low income persons without access to automobiles.

- d. Expansion of capacity at existing state parks and development of new state parks should include planning for Summer Recreation Transport Program participation by municipalities as a means of meeting the needs of economically disadvantaged youth.

8. Historic and Cultural Resources - Protect sites, villages, and areas of historic or cultural significance as well as surrounding areas which act as their setting. Examples meriting such preservation action may be listed in the Connecticut Historical Commission's Historic Structures and Landmarks Survey or in other state studies such as DEP's Bicentennial Monograph series as discussed in SCORP in Chapter VI, Connecticut's Natural and Cultural Heritage. Implementation measures will include: (a) acquisition (sometimes accompanied by resale with appropriate deed restrictions) by DEP or the Historical Commission, municipalities, or private organizations such as the Connecticut Trust for Historic Preservation, (b) promotion of preservation actions such as establishment of historic districts by the Historical Commission and local historic interests, and (c) appropriate land use regulation by municipalities to protect historic or cultural sites and their settings.

RECOMMENDATIONS FOR ASSISTANCE IN DEVELOPMENT OF RECREATION FACILITIES

- 1. Given the present deterioration of State facilities, maintenance

and effective operation of existing recreational facilities will require additional financial support from the State.

2. Development of new State facilities is predicated upon provision of sufficient additional funding of the Department. New facilities cannot be accommodated by shifting resources from one recreational program to another.

3. Federal funding from general tax revenues for rehabilitation of State facilities to accommodate handicapped individuals should be sought.

4. The passage of the Federal Safe Drinking Water Act establishing additional water purification requirements such as filtration systems may provide the opportunity to utilize water supply reservoirs and associated lands for recreation. The Interagency Water Resources Planning Board should initiate a study of the implications of the Federal Safe Drinking Water Act and review State policies relating to recreation in water supply areas.

5. The Summer Recreation Transport Program for bringing inner city youths to State parks should continue to be expanded. This program has been particularly valuable in alleviating urban area recreational deficiencies. Consideration should be given to expansion of the program to include museums, nature centers and private facilities open to the public.

6. The construction of boat launching sites and the maintenance of existing launch ramps will require additional funding sources. The use of currently unclaimed marine gas sales tax should be studied as a possible source of funds to augment existing boating funds.

7. Water utility lands, with their great open space significance, must be protected from large-scale development threats. This can be accomplished through regulation authorized by Public Act 77-606 and through the acquisition of environmentally important lands deemed surplus to water supply

production needs. Regulation will be carried out by the State Department of Health, assisted by DEP, with acquisition the responsibility either of DEP or municipalities utilizing funds provided by State or local government legislative and executive actions and any federal grant-in-aid moneys which may be available.

LAND AND WATER CONSERVATION ACT

1. Program Development - Historically, the State of Connecticut has developed outdoor recreation plans for a five year period. The recent amalgamation of the U.S. Department of the Interior's Bureau of Outdoor Recreation and Historic Commission functions into the Heritage Conservation and Recreation Service will require increased planning flexibility. In addition, the increased funding of the Land and Water Conservation Act from the sale of offshore oil leases and other revenue sources has increased available annual funds for the State from \$1 million in 1968-1969 and \$3-4 million in 1973-1977 to \$5-7 million anticipated for the next three years.

In order to effectively manage the increased funds and respond to new federal programs, it is recommended that the State take the following actions:

- a. A continuous planning process should be developed within the Department of Environmental Protection.
- b. An annual report should be developed based upon research of recreational issues which will give direction to the expenditure of federal and state recreation funds.
- c. An update of the State's Natural Areas Inventory should receive special attention during the 1978-1979 period.
- d. In order to assist municipalities in the development of recreation

plans, a new position for a municipal recreation planner will be established within the Department of Environmental Protection. This individual shall be available to assist municipalities with technical expertise and special planning programs.

- e. Inventory and cost estimates of required structural changes to existing state recreational facilities to provide for the accessibility of the handicapped (1978-1979).

2. Development of a Project Priorities System - The research conducted during the past year has identified many deficiencies in the delivery of recreational services and in the acquisition and protection of natural areas. It is highly unlikely that sufficient funds will be available at the state or local levels to meet all of the identified needs. Therefore, it is incumbent upon administrators of federal and state funds to assess the relative merits of projects in competition for funds.

- a. The Department of Environmental Protection should develop a priorities system which would allow consideration of the many variables associated with recreation acquisition and development projects.
- b. Among the variables which a priority system for land acquisitions should consider are:
 - i. potential loss of a critical land acquisition by delay in purchasing.
 - ii. the degree to which the acquisition meets the identified demand for water access, critical wildlife habitat or key natural area criteria.
 - iii. location of the acquisition relative to disadvantaged urban and rural areas.

- iv. availability of recreational areas within the local community.
- v. the extent to which acquisition assists in consolidation of existing local and State land holdings.
- vi. the extent to which local governments utilize available land and recreational facilities.
- vii. the magnitude of the area's supply deficiencies in providing selective recreational opportunities such as swimming, tennis, ball fields, etc.
- viii. the potential for development of the site for intensive recreation.
- ix. involvement of a gift or partial gift on an otherwise priority acquisition.
- x. degree of local government commitment to adequately manage and supply recreational facilities.
- xi. availability of other measures to protect critical natural areas and unique habitats.
- xii. the extent to which an acquisition may serve the needs of more than one community.
- c. Among the variables which a priority system should consider for development projects are:
 - i. the availability of private facilities at reasonable cost.
 - ii. the intensity of use by all segments of the population likely to be assisted by the development project.
 - iii. the accessibility of the facilities by mass transportation services.
 - iv. the proximity of the development project to population

- centers.
- v. the degree to which the development project is tied to alleviating the areas identified as having the greatest recreational needs.
 - vi. the degree to which the facilities may be able to meet the needs of more than one community.
 - vii. the degree to which the development project improves upon existing facilities and makes them serviceable to the elderly and handicapped.
 - viii. the degree to which the development project improves upon public recreational use of the state's water resources.
 - ix. the availability of underutilized resources in the community such as recreational facilities and areas associated with schools.
 - x. the proximity and capacity of State park facilities available to meet local needs.

RECOMMENDATIONS FOR MUNICIPAL RECREATION

1. Heritage Conservation and Recreation Service Allocation of Land and Water Conservation Act Funds to Municipalities -
 - a. Based upon DCA studies and SCORP questionnaires, the development and rehabilitation of facilities is the first priority to provide needed services.
 - b. In order to accommodate development and rehabilitation of municipal facilities, HCRS Land and Water Conservation Act Fund development

grants should be increased.

- c. Major municipal development and rehabilitation projects should be phased for financing over a period of years to avoid disproportionate allocation of limited federal funds. Given the major deficiencies of most municipalities, a distribution of funds which allows funding of a multiplicity of projects in a given year will best serve as a corrective measure.

2. Other Federal Urban Action Programs - The State supports the concept of federal involvement in improving the quality of our urban areas as expressed in President Carter's urban message. Because of the large capital outlays required for rehabilitating and developing urban recreational facilities, the provision of federal funds through new legislative initiatives is endorsed. Neither the Federal Land and Water Conservation Act nor the financial capabilities of urban governments are capable of providing sufficient funds to improve the situation significantly. The Department of the Interior's Heritage Conservation and Recreation Service was directed by Congress to prepare a National Urban Recreation Study which noted problem areas in the urban sector. The report also recommended various options to meet their problems. It is felt that if Congress should implement the options outlined in the report and the Administration's urban policies are enacted, they will improve the urban park problems.

RECOMMENDATIONS FOR LOCAL GOVERNMENT ACTION TO MEET RECREATION NEEDS

The Department of Environmental Protection's survey of municipal government recreational programs has revealed several areas of concern.

1. Some communities have not established cooperative programs between their recreation and education departments which could maximize use of available facilities.

- a. School yards and indoor pools within school buildings should be open during non-school hours.
- b. Local governments should budget for custodial and other required services to allow full-time utilization of school facilities.
- c. New public schools should be architecturally designed to allow non-school hour use of their recreational facilities.

2. Local governments have not maintained real dollar spending levels for recreational programs.

- a. There is a trend to substitute Comprehensive Employment and Training Act personnel for regular parks and recreation staff. The potential disruption to the recreation systems could be severe if this federal program is reduced in scope or discontinued.
- b. Local governments should consider CETA personnel as primarily supplemental to required maintenance personnel to allow for better upkeep, supervision and rehabilitation of facilities.

3. Improvements to existing facilities can increase utilization.

Local governments and urban areas in particular must be cognizant of the need to provide security at recreation areas. With a majority of the elderly concentrated in urban centers with high crime rates, the personal fear of being victimized has reduced facilities' utilization.

- a. Establishment of park security systems should receive increased attention both to avoid vandalism and improve public confidence.
- b. Local governments must begin a program of updating recreational

facilities to accommodate the needs of the elderly and handicapped.

- c. Mass transportation services should be extended to urban recreational areas during weekend and holiday periods to serve inner city residents, elderly and handicapped citizens who do not have access to automobiles.
- d. Local governments should make provision for citizen participation in recreational acquisition and development planning. By inclusion of representation of community interest groups in the planning process, programs can be better devised to meet local needs. Given the sometimes great differences in the recreational needs of segments of the population, local participation is often the only way of assessing demand.

4. Local government utilization of State lands. As a result of the Regional Planning Agency public hearings on SCORP, several local government officials have noted that their communities are without adequate recreational lands while major state land holdings not presently used for intensive recreation are available locally.

- a. The State should consider leasing portions of State lands to local governments to develop and maintain for more intensive recreation.
- b. Given the public trust in these State lands, lease agreements should provide for non-discrimination between local residents and any other citizens.
- c. Leases should be granted only where they are compatible with Department management objectives.

5. Urban areas have been identified as having the greatest recreational deficiencies based upon the U.S. Department of the Interior's National Urban

Recreation Study and research conducted by the Department of Environmental Protection. Urban area governments and recreation planning agencies should initiate actions to correct deficiencies as follows:

- a. Review existing land holdings for their potential development as intensive recreation sites or natural areas. Lands bordering rivers and other bodies of water are particularly valuable for recreational development.
- b. Acquisition and development of new urban recreational areas should be in conjunction with mass transportation services. Planning for mass transportation services should be initiated at the project's conceptual stage.
- c. Adequately fund budgets of parks and recreation units for activities development, maintenance and security services. Actions to increase utilization of existing facilities can be the most cost effective way to meet needs.
- d. Retention of permanent recreational staff rather than substitution of temporarily available federally-funded personnel can help in program development and continuity.
- e. Encourage federal funding of rehabilitation of facilities for use by the handicapped out of general tax revenues thereby retaining Land and Water Conservation Act funds for alleviating supply deficiencies.
- f. Housing redevelopment plans should be designed to encompass recreational facilities within walking distances of where people live.
- g. Special studies of the elderly and handicapped populations' recreational needs should be developed.

OUTDOOR RECREATION PRIORITIES

As a general guide to implementation of the recommendations resulting from the SCORP planning process, five categorical priorities have been identified based upon greatest demonstrated needs. Some examples of recommended actions which directly contribute to the accomplishment of outdoor recreation priority needs are included.

1. Increased Public Access to the State's Water Resources.

- Development of additional swimming and recreation capacity on State lands on Long Island Sound. Examples - Silver Sands State Park, Rocky Neck State Park expansion, Hammonasset State Park improvements.
- Acquire additional land and water rights to the state's lakes and ponds, especially those best suited for additional swimming and related recreational uses.
- Acquire lands, easements and water rights along cold water rivers and streams to preserve their natural integrity and allow recreation access and enjoyment. Examples - Farmington River and Scantic River corridors.
- Acquisition of coastal lands on Long Island Sound. Examples - fishing access, boat launches.

2. Support Municipal Acquisition and Development based upon Assessment of Greatest Needs.

-Population centers and urban areas.

- Development and rehabilitation of community and neighborhood parks including the elimination of architectural barriers for use of existing facilities by the elderly and handicapped.
- Creation of additional swimming capacity in proximity to population centers.
- Acquire lands adjacent to urban waterways and Long Island Sound.
- Recreation pathways - bicycle paths and hiking trails.

-Small towns

- Acquisition and development of community recreation areas.
- Lease of DEP State lands to municipalities where compatible with State management objectives.

3. Rehabilitation and Development of State Facilities.

- Inland swimming facilities - upgrading or development of alternative supply systems.
- Structural and facility rehabilitation, sanitary facilities improvements, road and parking improvements, and elimination of architectural barriers to elderly and handicapped.
- Boat launching site rehabilitation.
- Additional natural camping sites.
- Development of rifle and pistol range facilities.
- Development of cross-country skiing and other trails.
- Development of an equestrian center.

4. Other State Land Acquisition.

- Selection, acquisition and expansion of areas for new State parks that are near cities.
- Elimination of private inholdings and consolidation of existing state park and forest lands.
- Integrate and complete the State's Blue Trail and Appalachian Trail Systems.
- Cultural, historic and scenic areas.

5. Conservation of Natural Areas.

- Acquisition of natural areas listed on the State's Inventory of Natural Areas and other critical habitats which cannot be protected by other methods.
- Critical wildlife habitats.
- Areas of scientific and educational value for natural systems, study and research.

FIVE YEAR ACTION PLAN
STATE ACQUISITION ACTION PLAN

Over the 1978-1983 period the State will continue to emphasize water resources as Connecticut's greatest recreational need through the acquisition of river corridors for access and protection, coastal area acquisition for recreational use and access, and inland acquisitions of lakes and ponds to provide public access and recreational opportunities.

To achieve this goal, the State will initiate and/or continue major long-term acquisition programs along the Farmington, Scantic, Housatonic, Salmon, Connecticut, and Willimantic Rivers and other cold water rivers and streams, especially those with anadromous fisheries potential. This program will help to provide public access and to conserve the scenic character of these river corridors.

Implementation of the coastal acquisition program will be a result of timely negotiations with willing sellers of shorefront tracts. This program will be further expanded if natural disasters destroy developed areas along the shore. In such cases, the State will attempt to acquire private land before redevelopment on flood prone and hazardous areas can recur. Legislative action to create a disaster acquisition program would be advisable to insure the State's ability to act promptly to acquire storm-damaged properties.

The State's current priorities also encourage expanded public ownership of desirable lakes and ponds suitable for swimming and fishing. To achieve this goal the State will recommend purchase of large and small tracts of land, dams, and bottom and flowage rights that provide access to lakes and ponds. The needs of fishermen and recreational boaters can also be met through care-

ful selections of water bodies that meet their recreational objectives.

A second major SCORP goal is to increase the availability of State parks to the people concentrated in the state's largest urban areas. The cost of private transportation, lack of public transportation facilities, and the high cost of land near urban areas must be evaluated to establish a program whereby a greater number of citizens can obtain recreational experiences without traveling great distances. The acquisition of new parks or continued expansion of parks near large cities is a goal that will be emphasized. Providing municipal recreational lands for less urbanized communities through leasing of suitable State lands controlled by the Department of Environmental Protection will be given additional consideration to alleviate local deficiencies.

A third major goal is the acquisition of bicycle corridors and trails which may serve as multi-seasonal and multi-use facilities. Lands will be acquired for trail preservation and to integrate established trails used for hiking, horseback riding, skiing, trail biking, and snowmobiling. Portions of the Appalachian and Blue Trail Systems are threatened by displacement and development. The State's priorities with regard to these trails will emphasize acquisition of critical trail lands and alternate trail routes.

State acquisition of private "inholdings," or "nuisance" properties, which create management problems, and consolidation of State parks and forests was a goal proposed in past SCORP action plans and will again be emphasized. This proposed acquisition of private land will reduce trespassing and security problems, and encourage more effective management programs.

The acquisition planners will consider the availability of privately-owned watershed land as a source of hunting areas, natural or conservation areas and recreation sites. An ongoing study program will assess the tracts which are suitable for state acquisition if they become surplus properties. The com-

pleted study will enable the State to begin to exercise its first option to purchase with the goal of selecting the highest quality areas.

RECOMMENDATIONS FOR LAND ACQUISITION

Because land acquisition presents particular difficulties with respect to the timing of land sales and to the availability of funding, special consideration should be given to legislative and financial actions set forth in Chapter 8 which can assist the Department in carrying out its goals. The following items are acquisition priorities required to meet the needs identified in the 1978-1983 State Comprehensive Outdoor Recreation Plan.

- Coastal region purchases for public access to Long Island Sound and for future development of water-based recreational facilities.

- Acquisition of stream and river corridors both to preserve them from development and to realize their recreational potential.

- Acquisition of lands on large inland lakes and ponds which can accommodate public recreational swimming and related facilities.

- Selection, acquisition and expansion of areas for new State parks that are near cities.

- Acquisition of natural areas listed on the State's Inventory of Natural Areas and other critical habitats which are immediately endangered and cannot be protected by other methods.

- Location of bikeways in metropolitan areas which are isolated from traffic and can serve other trail purposes.

- Acquisition of fishing and boating access points on water bodies that have recreational utility.

- Acquisition of watershed lands with the highest potential for recreation and conservation purposes.

- Elimination of private inholdings and consolidation of existing State parks and forests.

- Acquisition of additional hunting, fishing, and wildlife management sites.

- Assist in the acquisition of cultural and historic sites, in conjunction with the Connecticut Historical Commission, where recreation can be provided.

Acquisition of lands to integrate and complete the state's Blue Trail and Appalachian Trail Systems.

STATE DEVELOPMENT ACTION PLAN

Major deficiencies have been noted in supplying recreational services to the public, both at the state and local government levels. For those facilities which are most properly identified as the responsibility of state government, the greatest deficiencies have been noted in development of coastal and inland swimming, camping, boat launching and fishing access, picnicking, and related facilities and provision of recreational trails, most notably bikeways.

Public response to the SCORP planning process has emphasized development of existing state lands for recreation. While the need for new facilities is well established, a definite pattern of obsolescence and deterioration of existing facilities which accommodate intensive recreational activities has been noted. There is both a qualitative and quantitative aspect to recreational services which cannot be separated from facilities planning. It would be unrealistic to assume that substantial progress can be made in correcting State facility inadequacies without a continuing commitment by the State to funding operation and maintenance programs at levels commensurate with good management.

The development of new facilities must be viewed as a goal rather than as a definite program which will be accomplished. The development of new facilities is dependent upon legislative support and financial resources rather than their enumeration in the state action plan. Under the provisions of the Land and Water Conservation Act, it is the State's responsibility to assume the costs of facility operation and maintenance. It should be recognized that the development of new facilities has associated operations and maintenance costs. New facilities cannot be developed without also providing the required additional operations and maintenance funds.

RECOMMENDATIONS FOR DEVELOPMENT

The provision of additional operating and maintenance funds beyond the meeting of existing facilities needs could allow the State to pursue the following development goals over the next few years:

Improve and rehabilitate existing facilities to provide quality recreation experiences and meet the needs of the handicapped and elderly when design limits access.

Develop additional coastal swimming capacity at Rocky Neck, Hammonasset, and Sherwood Islands State Parks.

Begin construction of Silver Sands State Park, one of the State's few remaining opportunities for new coastal swimming capacity.

Siting of Olympic-size pools on lands near population centers with day-use, family-type support facilities.

Complete the acquisition of Gardner Lake properties and development of its swimming potential.

Develop and implement plans to upgrade, where possible, existing inland parks for added swimming capacity.

Develop 100 new natural resource based campsites per year. The Pattaconk Lake area in Cockaponsett State Forest could provide swimming facilities for campers. It may be possible to develop additional campsites at Rocky Neck State Park. Campsites to accommodate primitive and canoe campers should be located and developed when adequate supervision becomes possible.

Construct and operate interpretive centers associated with Dinosaur, Fort Griswold, and Putnam Memorial State Parks.

Construct additional trails to accommodate the desire for an interconnected Blue Trail system tied to metropolitan areas.

In conjunction with the Connecticut Department of Transportation and federal agencies, complete construction of one or more bikeways isolated, to the maximum extent possible, from automotive traffic.

Expand segments of trail bike and snowmobile trails to allow greater travel distance (25 miles or more).

Construct a large bore rifle and pistol range capable of meeting Olympic competition standards and several smaller target shooting and sighting ranges on State lands.

Complete plans for a State equestrian center and begin construction of support facilities and trails.

Construct new boat launch ramps on Long Island Sound and large water bodies and upgrade existing facilities.

MUNICIPAL ACTION PLAN

The cities and towns of Connecticut have been participants in the Heritage Conservation and Recreation Service (HCRS) Grant-In-Aid Program since its inception in 1965. Towns have relied on this funding source to relieve a major share of the cost burden of recreational land acquisition and development.

Each municipality which has participated in the acquisition program has had its own specialized goals to meet local recreational needs and demands. These goals, though specific within each city or town, have been found to fit into the following categories:

Watercourses and shoreline properties in both fresh and salt water bodies;

Small tracts for future neighborhood parks;

Large tracts to serve as community-wide parks providing a range of passive and active recreational opportunities;

Scenic vistas along ridgetops, water bodies and natural areas;

Substantial land areas primarily for use as conservation areas and/or passive recreation.

Towns and cities have also shown an increased interest in developing active recreational facilities on currently-owned land which is usable for, or dedicated to, recreation. As in the acquisition portion of the grant program, each municipality has certain specific goals for development. These goals include the following types of facilities:

Parking Facilities

Sport and Playfields (ballfields, tennis courts, basketball courts, etc.)

Playgrounds (with various equipment)
Lighting Projects (ballfields and tennis courts)
Access Roads into Park Areas
Support Facilities (bathrooms, concession stands, storage buildings)
Picnic Areas including Tables and Grills
Swimming Areas on Ponds, Lakes, Seashores and Pools
Skating Areas
Hiking, Bicycling, Bridle, Snowmobile and Nature Trails
Fishing Access Areas
Nature Interpretive Centers
Fitness Trails
Marina Development
Golf Course Development

PRESENT NEEDS

The immediate recreational demands of the state's municipalities have reflected such factors as the size of a community's population or the rate of population expansion.

Smaller towns with slowly expanding populations and medium-sized communities historically have favored acquisition projects as their higher priorities. These communities indicate their need to plan for future expansion of undersized town parks or acquire land in newly developing neighborhoods. However, some of these communities have also shown an increased interest in use of development programs to expand facilities on town-owned land.

Suburban towns which have undergone recent and rapid expansion continue to express an interest in pursuing acquisition projects. They usually are attempting to make up for a lack of past activity in acquiring recreational property. These communities are frequently seeking park land in developed neighborhoods where there are no recreational facilities. Larger towns and

small cities have also shown a considerable interest in developing increased numbers and types of active recreational sites. Included in the need for capital improvements are requests for renovation of existing facilities. Contacts with these towns indicate that they will tend to shift their priorities from acquisition to development within the effective period of this plan.

Urban centers have indicated that they often lack vacant areas that can be used as active recreational sites and that the cost of developable land is extremely high. Nonetheless, such communities generally rank acquisition of new land as a low priority and exhibit strong interest in development projects. Cities that have made recreational purchases in the past or have existing parks favor increased intensive use of these areas. Thus, urban communities indicated that their highest priority is development of active recreational facilities on existing public lands.

FINANCING RECREATION BY THE MUNICIPALITIES

The municipalities of Connecticut have attempted to distribute the burden of capital cost of both acquisition and development of recreational areas to various levels of government in two ways. Both methods take advantage of federal and state funding and eliminate or reduce the local share in funding recreational improvements.

Urban areas that can qualify for Community Development Block Grant (CDBG) and Economic Development Administration (EDA) funds have used these sources to pay 100 percent of the local cost of both acquisition and development projects. These federal funding sources can also be matched with moneys from the Land and Water Conservation Fund (LWCF). Some urban communities have been able to successfully combine LWCF with these other federal funding sources.

On the other hand, many medium-sized and small communities have not been able to obtain CDBG or EDA funds for their towns. These municipalities have

used bonding and short-term borrowing to meet the local 50 percent share of capital recreational outlays. Nevertheless, despite eventual reimbursement via HCRS and State grant programs, these communities still must provide 25 percent of the total project cost.

Revitalization of recreational facilities in urban areas has been recommended by President Carter as part of his urban program. It should also be noted that Congress has implemented the option contained in the National Urban Recreation Study for an Urban Parks Program. This program, as well as the President's urban proposals, should help mitigate urban recreational problems.

The National Parks and Recreation Act of 1978 (Senate Bill 791) provides for an Urban Parks Program. The Urban Parks Program provides up to 70 percent federal funding for rehabilitation and development projects in urban areas. The Secretary of Interior will determine the eligibility of a given locality for funding. LWCF moneys may not be utilized as the local match for the Urban Parks Program but general revenue sharing moneys and Community Development Block Grants can be utilized as the local share. If state matching funds are provided, the federal share of project costs may be up to 85 percent.

Rehabilitation grants under this legislative act are "for the purpose of rebuilding, remodeling, expanding, or developing existing outdoor or indoor recreation areas and facilities including improvements in park landscapes, buildings and support facilities but excluding routine maintenance and upkeep activities."¹ Assistance may also be extended to "private non-profit agencies" defined as, "a community based, non-profit organization, corporation, or association organized for the purpose of providing recreational, conservation

¹Congressional Record - House, October 4, 1978.

and educational services directly to urban residents on either a neighborhood or community-wide basis through voluntary donations, voluntary labor, or public or private grants."² The Urban Parks Program may provide valuable additional support for meeting urban recreational needs.

MUNICIPAL ACQUISITION

The directions of municipal acquisition programs for the succeeding years should attempt to foster both acquisition for active and passive recreation as well as an expanded emphasis for the purchase of conservation areas. Municipal priorities should also reflect the expected availability of water utility surplus acreage that may be available for purchase in future years. The HCRS mandate to expand the use of the LWCF into a significant land and resource conservation tool can serve as a vehicle to acquire significant watershed areas as they become available to municipalities. As an additional goal, the conservation effort of the grant program should be to encourage the purchase of land that can be used concurrently for conservation, passive recreation and future active recreation. A trend which is apparent in urban centers has been the development of areas set aside by planners and farsighted conservationists of the past. Suburban and smaller towns can be expected to follow in this direction in future years.

MUNICIPAL ACQUISITION PRIORITIES

Purchase of access to rivers, shorefront areas, ponds and other water bodies for preservation and active recreation.

Acquisition of 5 to 10 acre tracts for use as neighborhood parks and active recreation sites.

Selection of large tracts that have a potential for both passive and active recreational uses.

²Ibid.

Provide for large land areas that are selected primarily for use as conservation areas but have the capacity to provide selected active and passive opportunities in the future.

Preservation of scenic vistas by purchase or easement, along ridge-tops, water bodies or natural areas.

MUNICIPAL DEVELOPMENT

Municipal recreation development plans should continue to emphasize the increased need for sport and playfields along with encouraging increased use of existing recreational facilities. Municipalities must initiate facilities' improvements to make them accessible to handicapped and elderly persons. It is advisable to begin such actions within the next year. The lighting for night use of sport fields is a method which allows for greater participant use of park sites without requiring additional land resources. Support facilities such as sanitary facilities, parking lots, access roads, and storage buildings are also necessary. Along with playfields, municipalities should strive to develop the concept of multiple-use of facilities. The multi-season use of parks is another method which can add to the availability of recreational resources. Encouraging a better utilization of recreational areas will aid in maximizing benefits of development projects.

MUNICIPAL DEVELOPMENT PRIORITIES

Sport and Playfields (ballfields, tennis courts, basketball courts, etc.)

Playground Areas

Parking Facilities

Lighting Projects (ballfields and tennis courts)

Support Facilities (bathrooms, storage buildings, dams and control fencing)

Picnic Areas

Access Roads into Park Areas

Trails (hiking, biking, bridle, snowmobile, and nature)

Swimming Areas (natural area development and pools)

Winter Sport Areas (skating and sledding)

Fishing Area Access

Fitness Trails

Marinas

Nature Interpretive Centers

Golf Course Development.

BUDGET FOR SCORP PLANNING

PLANNING AND COORDINATION UNIT

The Department of Environmental Protection's Planning and Coordination Unit is responsible for long-range outdoor recreation planning and other environmental planning and coordination activities. These responsibilities include assessment of recreation supply and demand characteristics, analysis of municipal recreation problems, development of programs to correct recreation deficiencies, development of environmental impact statements on recreation projects, and advising the Commissioner of Environmental Protection on outdoor recreation issues. The State Comprehensive Outdoor Recreation Plan is the end product of these planning elements.

Historically, the State has chosen to provide an updated recreation plan every five years. The Department has determined that an annual planning program would provide improvement in assessing and meeting recreational needs. The State's budget for recreation analysis must be increased to provide the necessary personnel for analytic elements and to provide assistance to municipalities in their planning programs.

At present, manpower allocation of the Planning and Coordination Unit allows 2 person-years for recreational responsibilities. During the SCORP planning of the past year, and additional .5 person-years was contributed by the Director of Planning and Coordination and an estimated 1 person-year by intermittently available personnel most of whom were nonpaid work-study program students from State colleges. This has proven to be inadequate for the tasks which must be completed for a comprehensive program. Similarly, the provision of only \$2,000 in state operating funds for the entire Planning and Coordination function has resulted in the unit incurring substantial deficits in its operating budget because of SCORP and other planning responsibilities.

In order to provide the State with recreational planning assistance adequate to direct the expenditure of over \$14 million annually of combined federal, state and local funds for recreational acquisition and development projects, there must be state-funded manpower and operation allocations for recreational planning functions. These personnel requirements are estimated as:

<u>Personnel</u>	<u>Person-Years</u>
2 Planner III positions or equivalent	2
1 Municipal Recreation Specialist	1
1 Environmental Analyst or equivalent	1
2 Permanent intermittent positions	<u>1</u>
Total	5

In order to meet the above staffing requirements, the Planning and Coordination Unit should add one additional position to support municipal recreational planning, one recreation planner position to release the Director for administrative duties, and two part-time student positions for research pur-

poses. The estimated net additional personnel costs are:

1 Planner III or equivalent position	\$15,000
1 Municipal Recreation Planner	15,000
1 person year Student laborer-technical	<u>6,000</u>
Total	\$36,000

The unit must be able to provide transportation, travel, specialized equipment, computer programming and analysis time and publication funds for these individuals to effectively conduct studies. The minimum estimated operating funds for this aspect of the Planning and Coordination Unit's functions are estimated as:

Travel and Automotive	\$2,000
Equipment and Supplies	750
Printing, Publishing & Related Expenses	1,500
Computer Analysis	5,000
Miscellaneous	<u>750</u>
Total	\$10,000

DIVISION OF CONSERVATION AND PRESERVATION

The Parks and Recreation Unit of this Division is responsible for development of intensively used outdoor recreational facilities. Adequate development plans are critical to the success of any State actions to supply recreational services. Among the tasks which the Parks and Recreation Unit must fulfill are: development of plans to upgrade State Parks to accommodate handicapped and elderly persons, rehabilitation programs for obsolete facilities, new recreational activities plans (bicycling paths, Olympic-size swimming pools, a development program for Silver Sands and West Rock Ridge State Parks).

These tasks and others cannot be accommodated with existing Parks and

Recreation Unit planning personnel and budget. If the SCORP action plan is to be meaningful, increased budgeting for development plans is necessary. An estimate of the requirements indicates the Parks and Recreation Unit budget should, at a minimum, be increased to provide:

1 additional Recreation Planner	\$18,000
Operating expenses and supplies	<u>5,000</u>
Total	\$23,000

The additional person would supplement the current staff of the Department's Parks and Recreation Unit which consists of three recreation resource specialists who are responsible for assessing the recreation potential of proposed land purchases, evaluation of construction plans for new facilities, and development plans among other responsibilities.

OUTDOOR RECREATION PLANNING PROGRAM

1978 to 1983

Planning elements are outlined below by federal fiscal year. The anticipated planning program for 1978-1979 is presented in detail with a work schedule.

1978-1979

1. Development of a project funding priority system.
 - a. Literature review, interview states with existing system.
 - b. Identify variables and develop ranking system.
 - c. Test priorities ranking system on past acquisition and development projects.
 - d. Review system with SCORP Advisory Board.
 - e. Test system on current project submittals.
 - f. Publication and dissemination of system.

2. Municipal needs survey
 - a. Survey by personal interview with recreation staff of 40 municipalities.
 - b. Development of municipal outdoor recreational needs profiles.
3. Initiate update of Natural Areas Inventory
 - a. Analysis of needs.
 - b. Reexamine computerized retrieval system.
 - c. Identification of unique wildlife ecosystems.
4. Review of state recreational facilities for barriers to the handicapped and elderly.
 - a. Identification of architectural barriers.
 - b. Assessment of accessibility.
 - c. Transition plan.
5. Appalachian Trail planning.
6. Continue participation in the New England-New York Recreation Demand Study.
7. State park recreation user study.

Planning elements which can be accomplished in 1978-79 within existing Department personnel constraints are:

<u>Element</u>	<u>Personnel</u>
1. Development of Priority Ranking System	2 person-years*
2. Municipal needs Survey - 20 towns	4 person-months
3. State Park User Study - design only	1 person-month
4. Identification of Unique Wildlife Ecosystems	2 person-months**
5. Appalachian Trail Planning	4 person-months
6. New England-New York Recreation Demand Study	<u>1 person-months</u>
Total	3 person-years

TABLE IX-1

PLANNING WORK SCHEDULE

October 1, 1978 - September 30, 1979

[illegible]

*A cooperative effort involving personnel of the Planning and Coordination Unit, Open Space Acquisition Unit and Division of Conservation and Preservation.

**A cooperative effort involving personnel of the Planning and Coordination Unit and Division of Conservation and Preservation.

Planning program elements predicated upon additional Department personnel:

<u>Element</u>	<u>Personnel</u>
1. Initiation of the Natural Areas Inventory Update	2 person-years*
2. Municipal Needs Survey - 20 towns	0.5 person-years
3. State Park User Study - implementation	0.5 person-years
4. State Facilities Review for Handicapped and Elderly Accessibility	<u>1 person-year**</u>
Total	4 person-years

*A cooperative effort involving personnel of the Planning and Coordination Unit, Natural Resources Center and Division of Conservation and Preservation.

**A cooperative effort involving personnel of the Planning and Coordination Unit and the Division of Conservation and Preservation.

1979-80

1. Update DEP lands inventory and classification system.
2. Heritage Program planning.
3. Municipal needs survey - 40 municipalities.
4. Regional Planning Agency staff workshops.
5. Workshops for municipal recreation personnel.
6. Continue development of transition plan for handicapped accessibility.

1980-81

1. Reassessment of demand data.
2. Heritage Program planning.
3. Reassess municipal inventory data.
4. Municipal needs survey - 40 municipalities.

1981-1982

1. Continue supply and demand analysis.
2. Initiate public participation element of the 1983 SCORP update.

1982-1983

1. 1983 SCORP.
2. Public participation meetings.

PROJECTED FIVE-YEAR ALLOCATION SCHEDULE
OF ACQUISITION AND DEVELOPMENT FUNDS

The total five-year action plan envisioned in SCORP calls for the expenditure of \$74 million by all levels of government in the state. This amount, and an additional \$14 million being requested from special state bonding and the Secretary of Interior's Contingency Fund for development of Silver Sands State Park, is summarized on Table IX-2. Action Plan estimates for expenditure are based upon receipt of an annual apportionment of \$7,400,000 from the U.S. Land and Water Conservation Fund. Coupling this annual apportionment with the required 50 percent match over the five-year period accounts for the \$74 million amount.

The division of this \$74,000,000 Action Plan by sector of investment is necessarily somewhat imprecise, because changing opportunities, problems, and administrative priorities during this five-year period are to be expected. Nonetheless, the General Statutes mandate an allocation of up to 30 percent of the annual Land and Water Fund apportionment for municipal development projects, indicating that \$2,200,000 in Federal moneys annually will be earmarked for this purpose. These funds over the five-year period will generate a \$22,000,000 park development and rehabilitation program.

TABLE IX-2

PROJECTED FIVE-YEAR ALLOCATION SCHEDULE OF ACQUISITION AND DEVELOPMENT FUNDS*

FISCAL YEAR	1978-79	1979-80	1980-81	1981-82	1982-83	5-YEAR
ACQUISITION						
State	\$ 2,000,000	\$ 3,000,000	\$ 2,300,000	\$ 2,300,000	\$ 2,300,000	\$11,900,000
Local	4,720,000	4,360,000	6,000,000	6,000,000	6,000,000	27,080,000
	<u>6,720,000</u>	<u>7,360,000</u>	<u>8,300,000</u>	<u>8,300,000</u>	<u>8,300,000</u>	<u>38,980,000</u>
DEVELOPMENT						
State	\$14,000,000	\$ 6,000,000	\$ 2,060,000	\$ 2,060,000	\$ 2,060,000	\$26,130,000
Local	4,440,000	4,440,000	4,440,000	4,440,000	4,440,000	22,200,000
	<u>18,440,000</u>	<u>10,440,000</u>	<u>6,500,000</u>	<u>6,500,000</u>	<u>6,500,000</u>	<u>48,380,000</u>
Total	\$25,160,000	\$17,800,000	\$14,800,000	\$14,800,000	\$14,800,000	\$87,360,000 **

*Funds include Land and Water Conservation Fund and matching expenditures.

For more detailed breakdown of expenditures, see Appendix J.

**Includes \$14 million in special requests from state bonding and the Secretary of Interior Contingency Fund for development of Silver Sands State Park.

Based upon recent experience, the division of the remaining \$5,200,000 annually in Federal moneys is likely to average roughly 60 percent for municipal acquisition and 40 percent for state acquisition and development, although perhaps varying considerably from year to year. Thus, during this period roughly \$30,000,000 may be spent on municipal park and open space acquisition, with a minimum of \$20,000,000 invested in state land acquisition and development projects.

Appendices

appendix

a

**Outdoor Recreation
Roles of Government**

A. FEDERAL GOVERNMENT

FEDERAL AGENCIES WITH RECREATIONAL SUPPORT ACTIVITIES

	FIN ¹ <u>ASST.</u>	TECH <u>ASST.</u>	REG.	PLNNG RES., <u>COORD</u>
DEPARTMENT OF AGRICULTURE				
AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE				
Rural Environmental Assistance	X			
COOPERATIVE STATE RESEARCH SERVICE				
Cooperative Forestry Research	X	X		
FARMERS HOME ADMINISTRATION				
Farm Ownership Loans	X			
Irrigation, Drainage, and other Soil and Water Conservation Loans	X			
Recreation Facility Loans	X			
Resource Conservation and Devel- opment Loans	X			
Watershed Protection and Flood Prevention Loans	X			
EXTENSION SERVICE				
Extension Programs for Recreation, Wildlife and Natural Beauty	X	X		
Extension Programs for Soil and Water Conservation	X	X		
FOREST SERVICE				
State and Private Forestry Coop- eration	X	X		
Forestry Cooperative Research	X	X		
Forestry Research	X	X		
SOIL CONSERVATION SERVICE				
Resource Conservation and Devel- opment	X	X		X
Soil and Water Conservation		X		X
Soil Survey		X		X
Watershed Protection and Flood Prevention	X	X		X
River Basin Surveys and Investi- gations		X		X
DEPARTMENT OF COMMERCE				
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				
Nautical Charts and Related Data		X		
River and Flood Forecasts and Warning		X		

¹ Includes funds for development and construction, rehabilitation, restoration, planning, management, equipment and acquisition.

	FIN ¹ <u>ASST.</u>	TECH <u>ASST.</u>	REG.	PLNNG RES., <u>COORD</u>
Weather Forecasts and Warnings		X		
Anadromous and Great Lakes				
Fisheries Conservation	X			
DEPARTMENT OF DEFENSE				
DEPARTMENT OF THE ARMY, OFFICE OF THE CHIEF OF ENGINEERS (ARMY CORPS OF ENGINEERS)				
Aquatic Plant Control		X		X
Beach Erosion Control Projects		X		X
Flood Control Projects		X		X
Navigation Projects		X		X
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT				
COMMUNITY PLANNING AND MANAGEMENT				
Comprehensive Planning Assistance	X			
New Communities Supplementary Grants for Public Facilities	X			
COMMUNITY DEVELOPMENT				
Neighborhood Facilities Grants	X			
Open Space Land Programs	X			
Public Facility Loans	X			
Neighborhood Development	X			
Urban Renewal Projects	X			
DEPARTMENT OF THE INTERIOR				
BUREAU OF LAND MANAGEMENT				
Public Land for Recreation, Public Purposes and Historic Monuments	X			
HERITAGE CONSERVATION AND RECREATION SERVICE				
Land and Water Conservation Act -Land Acquisition, Development and State Planning	X			
Outdoor Recreation Technical Assistance		X		
Outdoor Recreation Research and Education				X
Outdoor Recreation Water Resources Planning		X		X
Outdoor Recreation Coordination				X
Outdoor Recreation Resource Area Studies		X		X
National Register of Historic Places	X		X	X

	<u>FIN</u> <u>ASST.</u>	<u>TECH</u> <u>ASST.</u>	<u>REG.</u>	<u>PLNNG.,</u> <u>RES.,</u> <u>COORD.</u>
Administration of Historic Preservation Fund	X			
Historic Landmark Survey	X		X	X
Historic American Buildings Survey		X		X
Historic American Engineering Record		X		X
Interagency Archeological Services		X		
Technical Preservation Services		X		
BUREAU OF RECLAMATION				
Small Reclamation Projects	X			
FISH & WILDLIFE SERVICE				
Conservation Law Enforcement Training Assistance		X		
Farm Fish Pond Management	X			
Sport Fish Management		X		
Fish Restoration (Dingell/Johnson Act)	X			
Wildlife Enhancement		X		
Wildlife Research Information		X		
Wildlife Restoration (Pittman/Robertson Act)	X			
Fishery Research and Information		X		
GEOLOGICAL SURVEY				
Geologic and Mineral Resource Surveys and Mapping		X		
Map Information		X		
Topographic Surveys and Mapping		X		
Water Resources Investigations		X		
NATIONAL PARK SERVICE				
Disposal of Surplus Wildlife	X			
Park and Recreation Technical Assistance		X		
Park Practice Program		X		
National Wild & Scenic River Act		X		X
National Trails System				X
Federal Water Project Recreation Act				X
DEPARTMENT OF TRANSPORTATION				
U.S. COAST GUARD				
Boating Safety		X		
FEDERAL HIGHWAY ADMINISTRATION				
Highway Beautification-Landscaping and Scenic Equipment	X			
Highway Planning and Construction	X			

	<u>FIN</u> <u>ASST.</u>	<u>TECH.</u> <u>ASST.</u>	<u>REG.</u>	<u>PLNNG.,</u> <u>RES.,</u> <u>COORD.</u>
FEDERAL ENERGY REGULATORY COMMISSION				
Water Resources Development		X		
GENERAL SERVICES ADMINISTRATION				
Disposal of Federal Surplus				
Real Property	X			
NATIONAL SCIENCE FOUNDATION				
Interdisciplinary Research				
Relevant to Problems of Our				
Society	X			X
NEW ENGLAND REGIONAL COMMISSION				
New England Regional Economic				
Development	X			
SMALL BUSINESS ADMINISTRATION				
Management Assistance to Small				
Business		X		
Management and Technical Assistance				
for Disadvantaged Businessmen-				
Research and Demonstration				
Grants	X	X		
Small Business Loans	X			
ENVIRONMENTAL PROTECTION AGENCY				
WATER QUALITY OFFICE	X		X	X
AIR POLLUTION CONTROL	X		X	X
OFFICE OF NOISE ABATEMENT AND CONTROL	X		X	X

B. STATE GOVERNMENT - DESCRIPTION OF ADMINISTRATIVE RESPONSIBILITY

The government of the State of Connecticut is patterned after the federal system with three branches: legislative, judicial, and executive. Within the latter branch, the Governor's Cabinet is appointed from among the Commissioners of Administrative Services, Agriculture, Banking, Children and Youth Services, Commerce, Community Affairs, Consumer Protection, Correction, Education, Environmental Protection, Health, Insurance, Labor, Mental Health, Mental Retardation, Motor Vehicles, Policy and Management, Social Services, State Police, Tax, Transportation, and commissioners of additional agencies and boards.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

The Department of Environmental Protection (DEP) was established in the Executive Branch of the State Government by Public Act 872 of the 1971 General Assembly, to implement the environmental policy of the State. This policy is to conserve, improve, and to protect the natural resources and environment of Connecticut and to control air, land, and water pollution in order to enhance the health, safety, and welfare of the people of Connecticut. It is further incumbent upon this policy to improve and coordinate environmental plans, functions, powers and programs among state, federal, regional and local governments, other public and private organizations, and concerned individuals, and to manage the basic resources of air, land and water in order that the state may fulfill its responsibility as trustee of the environment for the present and future generations.

The Department of Environmental Protection basically consists of (1) the Office of the Commissioner, including a staff services unit and a

business administration unit; (2) The Division of Environmental Quality; and (3) the Division of Conservation and Preservation. (See Figure A-1) The Commissioner, with the assistance of his staff, directs overall planning, coordination and control of all Departmental programs, provides a broad range of administrative services to the department and receives, administers, and expends the Department's funds. The Division of Environmental Quality, under the direction of a Deputy Commissioner, administers and enforces the statutes and regulations governing pollution control within the department's jurisdiction and develops programs to protect the health and well-being of the public through the enhancement of environmental quality. The Division of Conservation and Preservation under the direction of the Deputy Commissioner, manages the natural and recreational resources areas under the direct control of the department, establishes programs to enhance the productivity of the state's natural resources, and provides for management and protection of unique and endangered natural resources.

Office of the Commissioner

The commissioner of environmental protection provides overall supervision and direction to the activities of the department. He is appointed by the governor. The commissioner is assisted by one or more executive assistants, a director of staff services, and a director of business administration who advise him on matters concerning their respective fields of experience and expertise.

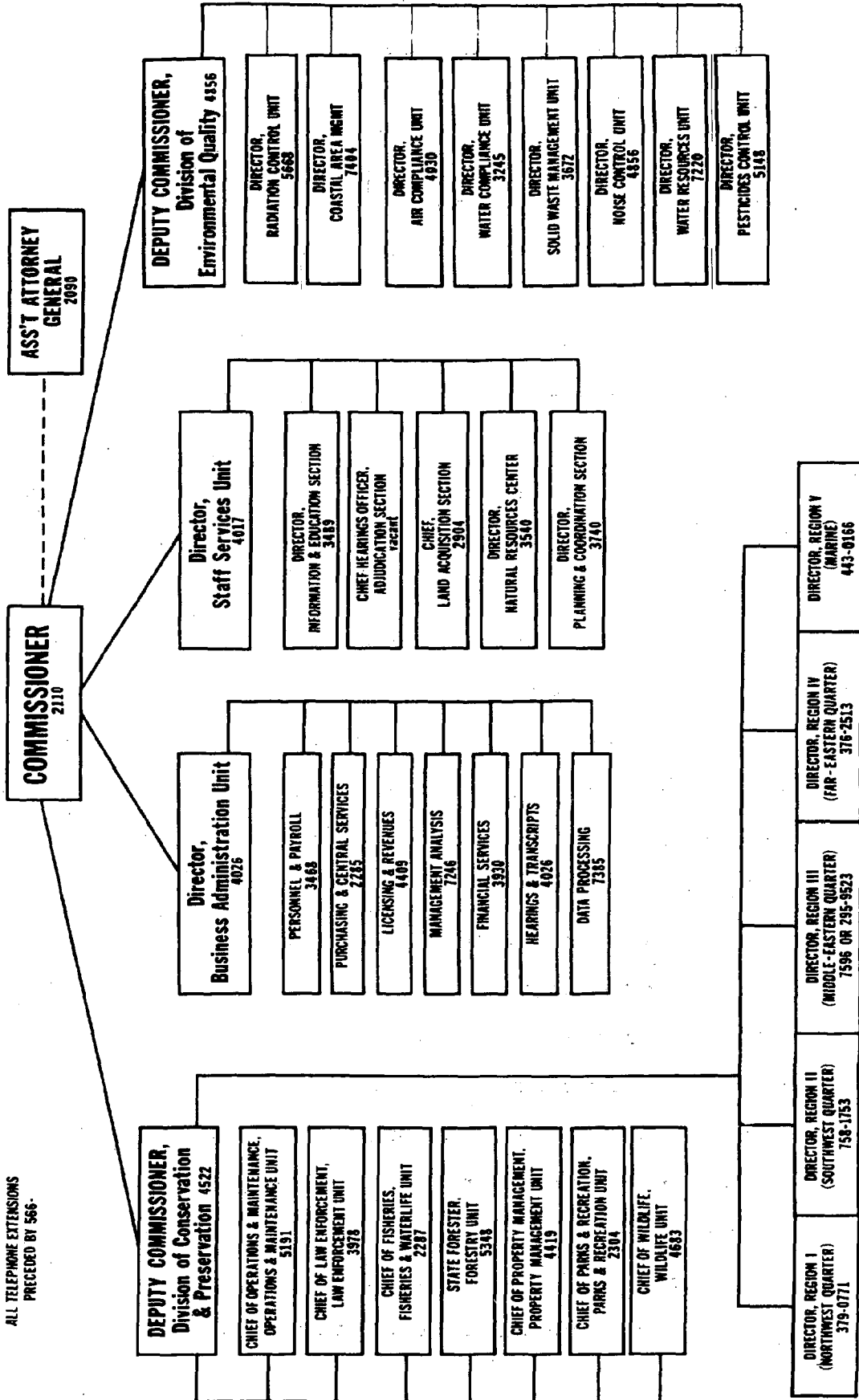
The director of staff services assists the commissioner with all phases of departmental programs and directs the activities of the staff services unit which consists of five sections: Information and Education; Adjudication; Planning and Coordination; Land Acquisition; and the Natural Resources Center.

FIGURE A - 1

DEPARTMENT OF ENVIRONMENTAL PROTECTION

General Mailing Address:

STATE OFFICE BUILDING
HARTFORD, CONNECTICUT 06115
ALL TELEPHONE EXTENSIONS
PRECEDED BY 566



The director of information and education coordinates the dissemination of information to the public and directs educational programs to inform groups, individuals, and other government agencies of Connecticut's environmental problems and of the department's activities. One of his principal duties is to present, in a clear and comprehensive manner, the complex concepts and interrelationships which underlie the delicate balances in Connecticut's ecological system.

The chief hearing officer directs the activities of the adjudication section and advises the commissioner on all hearings. He is responsible for all public and private hearings including training and assignment of hearings officers and completion of recommendations made as a result of such hearings. He also reviews hearings procedures to see that they meet all legal requirements. A primary responsibility of this office is to assure that the right of the public to be heard, fully and openly, is not abrogated or unnecessarily restricted. He shall also be responsible for reviewing existing departmental regulations and for promulgating new regulations when necessary. He shall maintain a complete file on all regulations.

The chief of land acquisition is responsible for acquiring land interests for the state. Acquisition is normally by devise, gift, exchange or purchase of a fee, lease or easement. The chief and his staff also provide assistance to municipalities seeking acquisition and development funds under federal, state and municipal open space programs, and coordinate with other units in reviewing land management proposals.

The director of the natural resources center is responsible for the collection, integration, and dissemination of natural resource

(earth material, topography, hydrology, biology, and atmospheric) data needed to make better environmental and land use decisions. He develops and maintains, in a central location, a natural resource data handling system containing the products of past systematic data collections and coordinates future data collection programs through the Connecticut Geological and Natural History Survey. The director and staff develops and participates in natural resource training programs, and provides technical assistance to state and local government agencies to aid them in performing their authorized duties through the specialized expertise of the center.

The director of planning and coordination directs analytical studies of the environmental and economic impact of pollution abatement programs, evaluates policy and program alternatives and recommends policies and programs to the commissioner. He coordinates relations with other federal and state agencies and local governments through review of federal and state funded projects requiring environmental impact statements and assists local governments and the public by coordinating permit applications. He is responsible for interdepartmental coordination, of the staff services unit, division of environmental quality, and division of conservation and preservation in cross discipline policy development and planning projects.

The director of administration directs the preparation of the budget and the management of the departmental funds. He is responsible for the procurement and accountability of federal grants-in-aid to the department and to municipalities. He directs the personnel activities of the department and is responsible for the purchase and inventory of all equipment and supplies. The director is responsible for receipt of all departmental revenues, the registration of x-ray devices and the issuance of various permits to hunt, fish, and trap. He is also

responsible for the development of a management information system and the cost analysis of departmental programs.

Division of Environmental Quality

The deputy commissioner for environmental quality directs the activities of the department with respect to administration of the statutes and regulations governing pollution control. He is responsible for developing and implementing new programs and policies designed to improve the quality of the environment, for enforcement of statutes and regulations, and for allocation of the division's manpower and budget resources. The deputy commissioner directs the activities of seven line units: Air Compliance, Water Compliance, Solid Waste Management, Water Resources, Radiation Control, Pesticides Control and Noise Control. He also supervises the activities of special studies units which may be established and which are assigned to his responsibility by the commissioner. A director is responsible for the administration of each of the seven line units.

The director of air compliance is responsible for management of the state's air pollution control program. He administers Connecticut's air quality implementation plan and other federal and state programs which provide for abatement of air pollution from both mobile and stationary sources.

The director of water compliance is responsible for the management of the state's water quality program. He administers federal and state permit programs for controlling discharges to the waters of the state. He is responsible for insuring compliance with pollution abatement regulations, issuing orders to abate water pollution, evaluation of the adequacy

of industrial and sanitary waste treatment systems, the inspection, registration and issuance of permit conditions for discharge systems. He also is responsible for supervision of control of oil and hazardous material and for development of plans for establishing and attaining water quality standards.

The director of solid waste management programs directs the development and implementation of state-wide plans for solid waste management and resource recovery. He supervises the regulation of volume reduction plants and ultimate disposal areas and coordinates with representatives of business, industry and government to encourage the development of public and private programs for solid waste management and resource recovery and reprocessing. With assistance of his staff, he issues permits for all solid waste facilities and monitors compliance with permit conditions.

The director of water resources and his staff are responsible for managing the water resources of the state, except the use of water for waste assimilation. The principal activities of this unit are wetland preservation, flood control, implementation and administration of minimum flow standards for Connecticut streams and regulation of dam construction, dredging and construction of other structures in waterways. The director is responsible for planning and developing comprehensive programs in furtherance of the general statutes in each of these areas of responsibility.

The director of radiation control is responsible for administration of federal and state programs and regulations for the control of radioactive substances which have the potential for discharge to the environment and to which the public is exposed through medical, scientific, engineering, education and related activities.

The director of pesticides control is responsible for implementing state and federal control laws regulating the use of pesticides in the environment. The director supervises the manufacture, distribution, storage, use and disposal of pesticides to ensure compliance with environmental quality standards.

The director of noise control administers a regulatory and consultative program for control of noise from stationary sources. Assistance is provided to local communities in the development of ordinances and programs. Upon complaint, noise sources are investigated and appropriate action instituted.

The deputy commissioner for conservation and preservation manages and regulates the use of natural resources and land and water areas within the jurisdiction of the department. He is responsible for establishing seasons and conditions for hunting, fishing, and other recreational sports, for creating and maintaining fish, wildlife, and plant management programs, for managing state land and water interests.

The deputy commissioner directs the activities of seven staff units: operations and maintenance, law enforcement, fisheries and waterlife, forestry, property management, parks and recreation, and wildlife. Each unit is headed by a director or chief. In addition, the deputy commissioner supervises five regional field offices, whose personnel implement policies and programs coordinated, reviewed and developed by the staff units with the approval of the deputy commissioner.

The chief of operations and maintenance and his staff coordinates the development and administration of policies and programs in the division. The chief is the deputy commissioner's principal assistant. He coordinates the operations of the other staff units and the activities of the five

regional offices. He is also responsible for the youth conservation corps program, the Portland supply depot, radio communications and the coordination of indian affairs.

The chief of law enforcement is responsible for enforcing state laws and administrative regulations governing the use of Connecticut's natural resource areas and the protection of wildlife within them. He trains and exercises technical program supervision over a field staff of enforcement officers who monitor compliance with laws, regulations, and licenses issued by other units in the division.

The chief of fisheries heads a staff which provides technical supervision for inland and marine fish programs and commercial and recreational fishing. These programs include producing, stocking and managing inland fish; maintaining boat launch sites; investigating fish populations; providing consulting services for private owners of ponds, lakes and streams; and administration of federal aid programs as they pertain to fish and waterlife.

The state forester is responsible for providing technical supervision for managing trees and forests on state lands, for preventing and suppressing forest fires, for providing planting stock to other public and to private landowners, for providing technical forestry advice and assistance to private landowners, loggers and primary wood processors, municipalities and other interested parties, for administration of the forest land tax law under provisions of Connecticut general statutes section 12-96 and section 12-107D, for operating the James L. Goodwin forest conservation center and for administering cooperative agreements with state and federal agencies and federal aid programs as they pertain to forestry and forest fire suppression.

The chief of property management and his staff administer the department's property management program. Management includes all matters concerning leases, agreements, easements, land exchange, land records, in-house surveys, encroachments, annual inspections of state owned properties acquired with federal funds and other matters normally related to property management. They may assist in land acquisition programs at the request of the chief of land acquisition with the approval of the deputy commissioner.

The chief of parks and recreation and his staff develop and administer Connecticut's recreational facilities and programs. The principal recreation programs include camping, swimming, boating, picnicking, trails, winter sports and heritage sites visitation.

The chief of wildlife and his staff provide technical supervision for the purchase and liberation of wildlife, the improvement of habitat conditions for all wildlife on state owned and private lands, and the administration of federal aid programs as they pertain to wildlife management.

The regional field offices implement the various programs of the division under the guidance of the various staff directors and chiefs. For purposes of program implementation, the state is divided into five regions: (1) Northwest quarter; (2) Southwest quarter; (3) Middle-eastern quarter; (4) Far eastern quarter; and (5) Marine district, comprising the area along Long Island Sound. A field office and staff exist in each region.

STATE AGENCIES WITH RECREATIONAL SUPPORT ACTIVITIES

	FIN ¹ ASST.	TECH ASST.	REG.	PLNNG RES., COORD.,
DEPARTMENT OF ENVIRONMENTAL PROTECTION				
OFFICE OF THE COMMISSIONER				
PLANNING & COORDINATION				
Provision of a Comprehensive Plan for Recreation				X
LAND ACQUISITION				
Assistance to Towns for Open Space Acquisition	X	X		
Coordination and Purchase of State Open Space Land	X	X		
Selection and Operation of Natural Area Preserves				X
Assistance to Potential Donors of Land and Water		X		
DIVISION OF PRESERVATION AND CONSERVATION				
PARKS AND RECREATION				
Development and Operation of Historic Parks and Monuments			X	
Development and Operation of Swimming and Picnic Facilities		X	X	X
Supervision and Promotion of Boating			X	X
Development and Operation of Camping Facilities			X	X
Development and Maintenance of Trails			X	X
Development and Operation of Winter Sports Facilities			X	X
FISH AND WATER LIFE				
Management of inland and Marine Fish		X	X	
WILDLIFE				
Management of Wildlife		X	X	
LAW ENFORCEMENT				
Conservation Law Enforcement		X	X	

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Includes funds for development and construction, rehabilitation, restoration, and acquisition.

	<u>FIN</u> <u>ASST.</u>	<u>TECH</u> <u>ASST.</u>	<u>REG.</u>	<u>PLNNG</u> <u>RES.,</u> <u>COORD.</u>
DIVISION OF ENCIRONMENTAL QUALITY				
WATER QUALITY				
Establishing and Enforcing Water Pollution Standards		X	X	X
AIR QUALITY				
Enforcement and Control of Air Quality		X	X	X
WATER RESOURCES				
Maintenance of Flood Retarding Structures			X	
Small Watershed Prevention Assist- ance to Towns	X	X		X
Flood Control Studies and Inter- Governmental Flood Control Studies and Surveys			X	X
Participation in Long Range Water Resources Planning				X
Shore Erosion Control		X		X
CONNECTICUT HISTORICAL COMMISSION				
Preservation and Development of Historical Sites	X	X		
Research to Discover Historically Significant Sites				X
CONNECTICUT DEPARTMENT OF COMMERCE				
Development of a Year-Round Tourist Industry		X		X
Small Business Loans	X	X		
Historic Restoration	X			
CONNECTICUT AGRICULTURAL EXPERIMENT STATION				
Research on Natural Resources, Forestry, Horticulture, and Agronomy.		X		X
DEPARTMENT OF HEATLH				
OFFICE OF PUBLIC HEALTH				
Regulation of Recreation Facilities Sanitation Inspection		X	X	X
DEPARTMENT OF TRANSPORTATION				
Maintenance of Highway Facilities	X		X	X

	<u>FIN</u> <u>ASST.</u>	<u>TECH</u> <u>ASST.</u>	<u>REG.</u>	<u>PLNNG</u> <u>RES.,</u> <u>COORD.</u>
OFFICE OF POLICY AND MANAGEMENT				
COMPREHENSIVE PLANNING DIVISION				
Coordination of Inter-Agency				
Water Resources Planning Board				X
Preparation of State Conservation				
and Development Policy Plan		X		X
BUDGET AND FINANCIAL MANAGEMENT				
DIVISION				X
INTERGOVERNMENTAL RELATIONS DIVISION	X	X		X

C. LOCAL GOVERNMENTMUNICIPALITIES WITH CONSERVATION COMMISSIONS, PARK AND RECREATION
COMMISSIONS, AND DIRECTORS OF PARKS AND RECREATION:

<u>TOWN</u>	<u>CONS. COMM.</u>	<u>PARK & REC. COMM.</u>	<u>PARKS & REC. DIRECTOR</u>
ANDOVER	X	X	
ANSONIA	X	X	
ASHFORD	X	X	
AVON	X	X	
BARKHAMSTED	X	X	
BEACON FALLS		X	
BERLIN	X	X	X
BETHANY	X	X	
BETHEL	X	X	
BETHLEHEM	X	X	
BLOOMFIELD	X	X	X
BOLTON	X	X	
BOZRAH	X	X	
BRANFORD	X	X	X
BRIDGEPORT	X	X	X
BRIDGEWATER	X	X	
BRISTOL	X	X	X
BROOKFIELD	X	X	
BROOKLYN	X	X	
BURLINGTON	X	X	
CANAAN	X	X	
CANTERBURY	X		
CANTON	X	X	X
CHAPLIN		X	
CHESHIRE	X	X	
CHESTER	X	X	
CLINTON	X	X	
COLCHESTER	X	X	
COLEBROOK		X	
COLUMBIA	X	X	
CORNWALL	X	X	
COVENTRY	X	X	
CROMWELL	X	X	
DANBURY	X	X	X
DARIEN	X	X	
DEEP RIVER	X	X	

TOWN	CONS. COMM.	PARK & REC. COMM.	PARKS & REC. DIRECTOR
DERBY	X		X
DURHAM	X	X	X
EASTFORD	X	X	
EAST GRANBY	X	X	
EAST HADDAM	X	X	
EAST HAMPTON	X	X	
EAST HARTFORD	X		X
EAST HAVEN	X	X	X
EAST LYME	X	X	
EASTON	X	X	
EAST WINDSOR	X	X	
ELLINGTON	X	X	
ENFIELD	X		X
ESSEX	X	X	
FAIRFIELD	X	X	X
FARMINGTON	X		X
FRANKLIN	X	X	
GLASTONBURY	X	X	X
GOSHEN	X	X	
GRANBY	X	X	
GREENWICH	X	X	X
GRISWOLD	X	X	
GROTON	X	X	X
GUILFORD	X	X	
HADDAM	X	X	
HAMDEN	X	X	X
HAMPTON	X		
HARTFORD		X	X
HARTLAND		X	
HARWINTON	X	X	
HEBRON	X	X	
KENT	X	X	
KILLINGLY		X	X
KILLINGWORTH	X	X	
LEBANON	X	X	
LEDYARD	X		X
LISBON	X		
LITCHFIELD	X	X	
LYME	X	X	
MADISON	X	X	

TOWN	CONS. COMM.	PARK & REC. COMM.	PARKS & REC. DIRECTOR
MANCHESTER	X	X	
MANSFIELD	X	X	X
MARLBOROUGH	X	X	
MERIDEN	X	X	X
MIDDLEBURY	X	X	
MIDDLEFIELD	X	X	
MIDDLETOWN	X	X	X
MILFORD	X	X	
MONROE	X	X	
MONTVILLE	X	X	X
MORRIS	X	X	
NAUGATUCK	X	X	
NEW BRITAIN	X	X	X
NEW CANAAN	X	X	
NEW FAIRFIELD	X	X	
NEW HARTFORD	X	X	
NEW HAVEN	X	X	X
NEWINGTON	X	X	X
NEW LONDON	X	X	X
NEW MILFORD	X	X	
NEWTOWN	X	X	
NORFOLK	X		
NORTH BRANFORD	X	X	X
NORTH CANAAN	X	X	
NORTH HAVEN	X	X	X
NORTH STONINGTON	X	X	
NORWALK	X	X	X
NORWICH	X	X	X
OLD LYME	X	X	
OLD SAYBROOK	X	X	
ORANGE	X	X	
OXFORD	X	X	
PLAINFIELD	X	X	
PLAINVILLE	X		X
PLYMOUTH	X	X	
POMFRET	X	X	
PORTLAND	X	X	
PRESTON	X	X	
PROSPECT	X	X	
PUTNAM	X	X	

TOWN	CONS. COMM.	PARK & REC. COMM.	PARKS & REC. DIRECTOR
REDDING	X	X	
RIDGEFIELD	X	X	
ROCKY HILL	X	X	
ROXBURY	X	X	
SALEM	X	X	
SALISBURY	X		X
SCOTLAND		X	
SEYMOUR	X	X	
SHARON	X	X	
SHELTON	X	X	
SHERMAN	X	X	
SIMSBURY	X	X	X
SOMERS	X	X	
SOUTHBURY	X	X	
SOUTHINGTON	X		X
SOUTH WINDSOR	X	X	
SPRAGUE	X		
STAFFORD	X	X	
STAMFORD	X	X	X
STERLING			
STONINGTON	X	X	
STRATFORD	X		X
SUFFIELD	X	X	X
TOLLAND	X	X	
TORRINGTON	X	X	
TRUMBULL	X	X	
UNION		X	
VERNON	X	X	
VOLUNTOWN			
WALLINGFORD	X	X	
WARREN	X	X	
WASHINGTON	X	X	
WATERBURY	X	X	X
WATERFORD	X	X	
WATERTOWN	X	X	
WESTBROOK	X	X	
WEST HARTFORD	X	X	X
WEST HAVEN	X	X	
WESTON	X	X	
WESTPORT	X	X	X

<u>TOWN</u>	<u>CONS. COMM.</u>	<u>PARK & REC. COMM.</u>	<u>PARKS & REC. DIRECTOR</u>
WETHERSFIELD	X	X	X
WILLINGTON	X	X	
WILTON	X	X	
WINCHESTER	X	X	
WINDHAM			X
WINDSOR	X		X
WINDSOR LOCKS	X	X	
WOLCOTT	X	X	
WOODBIDGE	X	X	
WOODBURY	X	X	
WOODSTOCK	X	X	

D. OTHER GOVERNMENTAL AND QUASI-GOVERNMENTAL BODIES

REGIONAL AGENCIES WITH RECREATION SUPPORT ACTIVITIES

	<u>FIN</u> <u>ASST.</u>	<u>TECH</u> <u>ASST.</u>	<u>REG.</u>	<u>PLNNG</u> <u>RES.,</u> <u>COORD.</u>
REGIONAL PLANNING AGENCIES		X		X
SOIL AND WATER CONSERVATION DISTRICTS		X		X
RESOURCE CONSERVATION AND DEVELOPMENT PROJECTS		X		X

E. SELECTED PRIVATE ORGANIZATIONSStatewide Organizations

American Youth Hostels
Hartford Council
P.O. Box 10392
West Hartford, Connecticut 06110

Appalachian Mountain Club, Connecticut Chapter
20 Dyer Avenue
Collinsville, Connecticut 06022

Connecticut Association of Soil and
Water Conservation Districts
Agricultural Center
Litchfield, Connecticut 06759

Connecticut Association of Recreation &
Park Directors
7 Linsley Street
North Haven, Connecticut 06473

Connecticut Audubon Society
2512 Burr Street
Fairfield, Connecticut 06430

Connecticut Conference of Municipalities
956 Chapel Street
New Haven, Connecticut 06510

Connecticut Forest and Park Association
1010 Main Street
P.O. Box 389
East Hartford, Connecticut 06108

Connecticut Horse Council, Inc.
1185 Main Street
South Windsor, Connecticut 06074

Connecticut and New England Family
Campers Association
21 Court Street
Apt. 6-9P
Rockville, Connecticut 06066

Connecticut and New England
Trail Riders Association
R.R. #5
North Main Street
Marlborough, Connecticut 06424

Connecticut Snowmobilers' Association
Pedersen Road
Box 141
East Hartford, Connecticut 06027

Connecticut Sportsman's Association
393 Sun Valley Drive
Southington, Connecticut 06489

Connecticut Waterfowler's Association
Beaver Dam Road
Stratford, Connecticut 06497

Connecticut Wildlife Federation
27 Washington Street
P.O. Box 7
Middletown, Connecticut 06457

Easter Seal Society for Crippled Children and
Adults of Connecticut, Inc.
682 Prospect Avenue
Hartford, Connecticut 06101

Natural Resources Council of Connecticut
P.O. Box 151
Bridgewater, Connecticut 06752

The Nature Conservancy
Connecticut Chapter
P.O. Box MMM, Wesleyan Station
Middletown, Connecticut 06457

Sierra Club, Connecticut Chapter
60 Washington Street, Suite 611
Hartford, Connecticut 06106

Regional Organizations

Berkshire-Litchfield Environmental Council
P.O. Box 552
Lakeville, Connecticut 06039

Connecticut River Watershed Council
256 Old Farms Road
Simsbury, Connecticut 06070

Fairfield County League of Sportsmen
96 Bennett Street
Bridgeport, Connecticut 06605

Farmington River Watershed Association, Inc.
195 West Main Street
Avon, Connecticut 06001

Housatonic Valley Association, Inc.
R.F.D. 1, Box 134
Kent, Connecticut 06757

New London County League of Sportsmen
41 Green Avenue
Jewett City, Connecticut 06351

Sleeping Giant Park Association
Box 52, Quinnipiac College
Hamden, Connecticut 06518

Talcott Mountain Forest Protective Association
P.O. Box 515
Simsbury, Connecticut 06070

White Memorial Foundation
Litchfield, Connecticut 06759

Local and Regional Land Trusts¹

Aspetuck Land Trust
Box 444
Westport, Connecticut 06880

Bethany Conservation Trust, Inc.
Miller Road
Bethany, Connecticut 06525

Cheshire Land Trust, Inc.
P.O. Box 781
Cheshire, Connecticut 06410

Guilford Land Conservation Trust, Inc.
P.O. Box 200
Guilford, Connecticut 06437

Haddam Land Trust, Inc.
Old Country Road
Haddam, Connecticut 06438

¹Includes only those with 100 acres or more land held in trust.
In total there are 65 local land trusts in Connecticut.

Madison Land Conservation Trust, Inc.
P.O. Box 561
Madison, Connecticut 06443

Mashantucket Land Trust, Inc.
P.O. Box 49
Old Mystic, Connecticut 06372

Newtown Forest Association, Inc.
P.O. Box 525
Danbury, Connecticut 06810

Old Lyme Land Conservation Trust
Still Lane
Old Lyme, Connecticut 06371

Redding Land Trust, Inc.
P.O. Box 76
Redding, Connecticut 06875

Land Conservancy of Ridgefield, Inc.
P.O. Box 584
Ridgefield, Connecticut 06877

Steep Rock Association, Inc.
P.O. Box 133
Washington, Connecticut 06793

Weantinogue Heritage, Inc.
P.O. Box 242
New Milford, Connecticut 06776

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**DEP Property
Management List**

PRELIMINARY

DETAILED LISTING OF DEPARTMENT OF ENVIRONMENTAL PROTECTION

PROPERTIES BY AMENDED MANAGEMENT CATEGORY¹

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
1. STATE PARKS				
Devil's Hopyard State Park	III		860	
Devil's Hopyard State Campground		4		
Fort Shantok State Heritage Park	IV		170	
Gillette Castle State Heritage Park	III		184	
Hammonasset Beach State Park	III		928	
Hammonasset State Campground		88		
Salt Marsh State Natural Area		605		
Harkness Memorial State Heritage Park	III		116	
Headquarters - Region V		2		
Hurd-George Dudley Seymour State Park	III		1106	
Kent Falls State Park	I		285	
Kent Falls State Campground		18		
Macedonia State Park	I		2300	
Macedonia Brook State Campground		60		
Mashamoquet Brook State Park	IV		1540	
Wolf Den State Campground		92		
Penwood State Park	I		787	
Lake Louise State Conservation Reserve		36		

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Putnam Memorial State Heritage Park	II		183	
Rocky Neck Beach State Park	III		710	
Rocky Neck State Campground		90		
Sherwood Island Beach State Park	II		234	
Sleeping Giant State Park	II		1327	
Sleeping Giant State Campground		4		
Southford Falls State Park	II		120	
Squantz Pond State Park	II		1238	
Squantz Pond State Boat Launching Facility		2		
Candlewood Lake State Boat Launching Facility		1		
Wadsworth Falls State Park	III		285	
TOTAL			12,373	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
2. STATE FORESTS				
Algonquin State Forest Kitchell Wilderness Preserve	I	484	2306	
American Legion State Forest Austin Hawes State Campground Headquarters - Region I	I	78 5	782	
Cockaponset State Forest Pataconk State Campground Pataconk Lake State Boat Launching Facility Chester Cedar Swamp Natural Area Preserve Turkey Hill Lot Natural Area Preserve Westwood State Reserve Millers Pond State Reserve Forster Pond State Reserve Chatfield Hollow State Recreation Area	III	350 1 400 80 250 281 194 356	15,118	
Enders State Forest	I		1434	No Hunting
James L. Goodwin State Forest Pine Acres Lake Access Area James L. Goodwin Conservation Center	IV	1 83	1912	No Hunting
Great Pond State Forest Stratton Brook State Recreation Area	I	148	429	No Hunting

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Housatonic State Forest	I		9492	
Housatonic Meadows State Campground		60		
Canaan Mountain Natural Area Preserve		1430		
Roy Swamp State Wildlife Area		40		* Federal Funds
Mattatuck State Forest	I		4468	
Mattatuck State Recreation Area		407		
Thomaston Dam		995		
Black Rock State Campground		32		
Humaston Brook State Reserve		141		
Meshomasic State Forest	III		6691	
Cox Lot)		40		
Reeves Lot) Natural Area Preserve		40		
Cabin Lot)		40		
Gay City State Recreation Area		1569		
D.E.P. Central Supply Depot		40		
Mohawk State Forest	I		3245	No Hunting
Black Spruce Bog Conservation Reserve		40		
Mohawk Pond State Boat Launching Facility		1		
Mohawk Mountain State Recreation Area		260		
Mohegan State Forest	IV		778	
Nassahegon State Forest	I		1226	
Burlington State Fish Hatchery		42		

* Federal cost sharing requires a continuation of existing use. This note applies wherever "Federal Funds" are indicated in this document.

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Natchaug State Forest	IV		12515	
Airline Railroad		285		
Natchaug State Recreation Area		56		
Pumpkin Hill State Wildlife Area		50		
Hampton Reservoir State Fish Area		60		
Bigelow Brook State Fish and Wildlife Area		40		
Nathaniel Lyon Monument State Heritage Site		.01		
Nathan Hale State Forest	III		1238	
White Oak Natural Area		25		
Naugatuck State Forest	II		3338	
Nehantic State Forest	III		3655	
Uncas Lake State Reserve		10		
Uncas Lake State Boat Launching Facility		1		
Norwich Pond State Boat Launching Facility		1		
Tanney Hill State Fish and Wildlife Area		1200		
Nepaug State Forest	I		1198	
Nipmuck State Forest (Less Black Pond Parcel)	IV		7757	
Bigelow Hollow State Recreation Area		20		
Bigelow Pond		20		
Bigelow Pond State Boat Launching Facility		4		
Mashapaug Lake State Boat Launching Facility		2		
Morey Pond State Boat Launching Facility		1		
Breakneck State Conservation Reserve		113		
Nye Holman State Forest	III		873	
Pachaug State Forest	IV		22,937	
Mt. Misery State Campground		14		
Green Falls State Recreation Area		32		
Green Falls State Campground		15		
Green Falls State Boat Launching Facility		1		

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Hopeville Pond State Recreation Area		494		
Hopeville Pond State Campground		60		
Hopeville Pond State Boat Launching Facility		1		
Hell Hollow State Wildlife Area		40		
Great Meadow State Wildlife Area		70		
Great Meadow Swamp Natural Area Preserve		550		
Lockes Meadow State Wildlife Area		25		
Rhododendron Swamp State Scenic Reserve		60		
Porter Pond State Fish Area		20		
Sue Hopkins State Wildlife Area		35		
Ledgebills State Fish and Wildlife Area		85		
Heron Marsh State Fish and Wildlife Area		40		
Wickabonet State Fish and Wildlife Area		10		
Erickson State Fish and Wildlife Area		6		
Dawley Pond State Fish Area		10		
State Forest Nursery		12		
Headquarters - Revlon IV		4		
Beachdale Pond State Boat Launching Facility		1		
Wyassup Lake State Boat Launching Facility		1		
Pachaug Pond State Boat Launching Facility		1		
Paugnut State Forest	I		3794	
Burr Pond State Recreation Area		346		
Burr Pond State Boat Launching Facility		2		
Taylor Brook State Campground		88		
John A. Minetto State Recreation		678		
Sunny Brook State Recreation Area		444		
Paugussett State Forest	II		1935	
Peoples State Forest	I		2954	
Matheis State Recreation Area		25		
Quaddick State Forest	IV		576	
Quaddick State Recreation Area		115		
Quaddick Reservoir		194		
Quaddick Reservoir State Boat Launching Facility		1		

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Salmon River State Forest	III		6102	
Day Pond State Recreation Area		180		
Wopowog State Fish and Wildlife Area		473		
Salmon River Imprint Ponds		4		
Larson Lot State Wildlife Area		240		
Holbrook Pond State Fish and Wildlife Area		75		
Holbrook Pond State Boat Launching Facility		1		
Pickerel Lake State Boat Launching Facility		1		
Headquarters - Region III		4		
Shenipsit State Forest	III		6178	
Furnace Brook-Middle River State Conservation Reserve		1200		
Topsmead State Forest	I		512	
Tunxis State Forest	I		8692	
Wyantenock State Forest			3260	
Total			135,395	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
3. STATE RECREATION AREAS				
Indian Well State Recreation Area Indian Well State Boat Launching Facility	II	1	153	
Kettletown State Recreation Area Kettletown State Campground	II	17	507	
Lake Waramaug State Recreation Area Lake Waramaug State Campground	I	79	95	
Mt. Tom State Recreation Area	I		223	
Osbornedale State Recreation Area	II		350	
Wharton Brook State Recreation Area	II		96	
Whittemore State Bridle Trail			241	
TOTAL			<hr/> 1665	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
4. STATE CAMPGROUNDS (listed also under Primary Land Classification)				
Devil's Hopyard State Campground	III		4	
Hammonasset State Campground	III		88	
Kent Falls State Campground	I		18	
Macedonia Brook State Campground	I		60	
Wolf Den State Campground	IV		92	
Rocky Neck State Campground	III		90	
Sleeping Giant State Campground	II		4	
Austin Hawes State Campground	I		78	
Pataconk State Campground	III		350	
Housatonic Meadows State Campground	I		60	
Black Rock State Campground	I		32	
Mt. Misery State Campground	IV		14	
Green Falls State Campground	IV		15	
Hopeville Pond State Campground	IV		60	
Taylor Brook State Campground	I		88	
Kettletown State Campground	II		17	
Lake Waramaug State Campground	I		79	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
5. <u>STATE HERITAGE AREAS</u>				
Bartlett Arboretum State Heritage Area	II		63	U-Conn Manages
Continental Army State Heritage Site	I		12	
Dinosaur State Heritage Site	I		57	
Fort Griswold State Heritage Site	IV		16	
Industrial Monument State Heritage Site	I		2	
Israel Putnam Monument State Heritage Site	IV		.1	
John Mason Monument State Heritage Site	IV		.01	
Miantonomo Monument State Heritage Site	IV		.4	
Nathan Hale Monument State Heritage Site	III		.08	
Pequot Burial Ground State Heritage Site	IV		20	
Swamp Fight Monument State Heritage Site	II		<u>.01</u>	
TOTAL			150.8	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
6. STATE RESERVES				
Above All Reserve			31	
Baldwin Marsh State Conservation Reserve	II		34	
Beaver Brook State Reserve	IV		401	
Beaver Brook Ponds Access Area		2		
Blackberry River State Reserve	I		250	
Bluff Point State Reserve	IV		806	
Bolton Notch State Scenic Reserve	III		70	
Bolton Notch State Boat Launching Facility		1		
Brainard Homestead State Scenic Reserve	III		25	
Campbell Falls State Scenic Reserve	I		102	
Collis P. Huntington State Reserve	II		878	
Connecticut Arboretum State Reserve	IV		10	
Connecticut Valley Railroad	III		300	Scenic Railroad
Dart Island State Scenic Reserve	III		2	
Dennis Hill State Scenic Reserve	I		240	
Farm Brook State Conservation Reserve	II		200	
Saybrook Fort State Heritage Reserve	III		18	
George C. Waldo State Reserve	II		150	
Haddam Island State Scenic Reserve	III		14	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Haddam Meadows State Conservation Reserve	III	2	175	
Haddam Meadows State Boat Launching Facility				
Halley Farm State Reserve	IV		198	
Haystack Mountain State Scenic Reserve	I		116	
Hopemead State Reserve	IV		60	
Horseguard State Reserve	I		146	
Ivy Mountain State Reserve	I		50	
Lamentation Mountain State Scenic Reserve	I		47	
Lord's Island State Conservation Reserve	III		20	
Lovers Leap State Scenic Reserve	II		75	
Mad River State Reserve	I		430	
Mad River Flood Control Reservoir		406		
Mansfield Hollow State Reserve	III		2328	Leased from Fed. Gov't.
Mansfield Hollow State Recreation Area		40		
Naubesatuck Lake State Boat Launching Facility		2		
Mianus River State Reserve	II		335	
Minnie Island State Reserve	IV		1	
Mount Bushnell State Reserve	I		114	
Mount Riga State Reserve	I		276	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
North Branch Park River State Reserve	I		1450	Leased to Bloomfield
Norwalk River State Conservation Reserve	II		425	
Platt Hill State Scenic Reserve			81	
Pomeroy State Reserve	IV		104	
Quinnipiac River	II		342	
Rich's Island State Scenic Reserve	III		10	
Rocky Glen State Conservation Reserve	II		41	
Selden Neck State Scenic Reserve			524	
Seth Low Pierrepont State Reserve	II		305	
Silver Sands State Reserve	II		223	
South Branch Park River State Reserve	I		670	I-291 Corridor Leased to W. Htfd.
Squaw Rock State Scenic Reserve	IV		343	
Stoddard Hill State Scenic Reserve	IV		55	
Stoddard Hill State Boat Launching Facility		1		
Sucker Brook State Reserve	I		156	
Sunset Rock State Scenic Reserve	I		15	
Talcott Mountain State Scenic Reserve	I		557	
Heublein Tower State Recreation Area		294		
Thatchbed Island State Reserve				

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Trimountain State Scenic Reserve	II		157	
West Peak State Scenic Reserve	II		177	
Werner Woods State Reserve	I		109	
Whittemore Glen State Reserve	II		307	
Hop Brook Flood Control Reservoir		250		
Windsor Meadows State Reserve	I		128	
Wooster Mountain State Reserve	II		381	
Zalessky State Reserve	II		250	No Recreational Use
West Rock Ridge	II		213	
Joshua's Trust	III		<u>58</u>	
TOTAL			15,096	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
7. STATE NATURAL AREA PRESERVES (listed also under Primary Land Classification)				
Hammonasset Salt Marsh Natural Area	III		605	
Kitchell Wilderness Preserve	I		484	
Chester Cedar Swamp Natural Area Preserve	III		400	
*Turkey Hill Plot Natural Area Preserve	III		80	
*Canaan Mountain Natural Area Preserve	I		1430	
*Cox Plot Natural Area Preserve	III		50	
*Reeves Plot Natural Area Preserve	III		40	
*Cabin Plot Natural Area Preserve	III		40	
White Oak Natural Area	III		25	
Great Meadow Swamp Natural Area Preserve	IV		550	
Total			3704	

* Formerly designated as provided by Connecticut General Statutes

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
8. <u>STATE FISH AND/OR WILDLIFE AREAS</u>				
Assekong Swamp State Wildlife Area	IV		697	Federal Funds
Barn Island State Fish & Wildlife Area	IV		756	Federal Funds
Barn Island State Boat Launching Facility		2		
Bartlett Brook State Wildlife Area	IV		571	Federal Funds
Bishops Swamp	III		500	
Branford River State Wildlife Area	III		80	Federal Funds
Charter Marsh State Wildlife Area	III		240	Federal Funds
Charles E. Wheeler State Wildlife Area	II		812	Federal Funds
Milford Sanctuary State Conservation Reserve		15		
Cromwell Meadows State Fish & Wildlife Area	I		486	Federal Funds
Democrat Rock State Wildlife Area	III		1 (0.1)	
Durham Meadows State Fish & Wildlife Area	III		571	Federal Funds
East River State Fish & Wildlife Area	IV		142	Federal Funds
East Swamp State Fish & Wildlife Area	II		82	Federal Funds
Farm River State Fish & Wildlife Area	II		33	Federal Funds
Fenton River State Fish Area	III		24	Federal Funds
Flaherty Field Trial Area	III		261	Federal Funds

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
8. STATE FISH AND/OR WILDLIFE AREAS				
Franklin Swamp State Fish & Wildlife Area	IV	12	450	Federal Fund
Franklin State Wildlife Propagating Facility				
Glastonbury Meadows State Wildlife Area		2		
Great Harbour State Wildlife Area		220		Federal Fund
Great Island State Fish & Wildlife Area	III	2	504	Federal Fund
Great Island State Boat Launching Facility				
Hammock River State Wildlife Area	III		88	Federal Fund
Higganum Meadows State Fish & Wildlife Area	III		61	Federal Fund
Little River State Fish Area	IV		48	
Lord's Cove State Wildlife Area	III		340	Federal Fund
Nott Island State Wildlife Area	III		82	Federal Fund
Pease Brook State Fish & Wildlife Area	IV		207	Federal Fund
Pecausett Meadows State Fish & Wildlife Area	III		11	Federal Fund
Penny Island State Wildlife Area	IV		1	Federal Fund
Plum Bank State Wildlife Area	III		258	Federal Fund
Pudding Hill State Wildlife Area	IV		137	
Quinebaug State Fish & Wildlife Area	IV		988	
Quinebaug Valley State Fish Hatchery		60		

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATIONS	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Quinnipiac River State Wildlife Area	II		342	
Ragged Rock Creek State Wildlife Area	III		202	Federal Funds
Robbins Swamp State Wildlife Area	I		653	Federal Funds
Rose Hill State Wildlife Area	IV		443	
Ross Marsh State Fish & Wildlife Area	IV		269	
Salmon River Cove State Fish & Wildlife Area	III		94	Federal Funds
Scoville Sanctuary State Wildlife Area	I		30	Federal Funds
Shade Swamp State Wildlife Area Farmington Headquarters	I	4	900	No Hunting
Simsbury State Wildlife Area	I		91	
Six Penny Island State Wildlife Area	III		8	Federal Funds
Skungamaug River State Fish Area	III		27	
South Cove State Wildlife Area	III		49	Federal Funds
Tetereault Pond State Fish & Wildlife Area	IV		60	
Wangunk Meadows State Fish & Wildlife Area	III		518	Federal Funds
West River Marsh State Wildlife Area	III		8	Federal Funds
Quinnipiac River Marshes	II		540	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
9. STATE ACCESS AREAS				
Amos Lake State Boat Launching Facility	IV		2	
Anderson Pond State Boat Launching Facility	IV		1	
Avery Pond State Boat Launching Facility	IV		2	
Ball Pond State Boat Launching Facility	II		2	
Batterson Park Pond State Boat Launching Facility	I		4	
Bashan Lake State Boat Launching Facility	III		1	
Bayberry Lane State Boat Launching Facility	IV		1	
Beseck Lake State Boat Launching Facility	III		1	
Billings Lake State Boat Launching Facility	IV		2	
Black Pond State Boat Launching Facility	III		1	
Black Pond (Woodstock) State Boat Launching Facility	IV		1	
Middle Bolton Lake State Boat Launching Facility	III		1	
Lower Bolton Lake State Boat Launching Facility	III		1	
Branford River State Boat Launching Facility	III		3	
Cedar Lake State Boat Launching Facility	III		2	
Crystal Lake (Ellington) State Boat Launching Facility	III		1	
Crystal Lake State Boat Launching Facility	III		1	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Dock Road State Boat Launching Facility	III		2	
Dodge Pond State Boat Launching Facility	III		1	
Dog Pond State Boat Launching Facility	I		1	
Dooley Pond State Boat Launching Facility	III		1	
East Haddam State Boat Launching Facility	III		2	
East River State Boat Launching Facility	III		11	
Enfield Dam State Access Area	I		4	
Enfield Dam State Boat Launching Facility		1		
Enfield Rapids State Boat Launching Facility	III		2	
Farmington River State Access Area	I		30	
Four Mile River State Boat Launching Facility	III		8	
Gardner Lake State Boat Launching Facility	III		3	
Glasgo Pond State Boat Launching Facility	IV		2	
Corton's Pond State Boat Launching Facility	III		2	
Hayward Lake State Boat Launching Facility	III		1	
Higganum Reservoir State Boat Launching Facility	III		1	
Highland Lake State Boat Launching Facility	I		1	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Housatonic River State Boat Launching Facility	II		1	
Kenosia Lake State Access Area	II		1	
Lake Housatonic State Access Area	II		3	
Lake Lillinonah State Boat Launching Facility (2)	II		7	
Lake of Isles State Boat Launching Facility	IV		3	
Lake Zoar State Access Area	II		52	
Lake Zoar State Boat Launching Facility	II	2		
Lantern Hill Pond State Boat Launching Facility	IV		2	
Lattins Cove State Boat Launching Facility	II		5	
Little Pond State Boat Launching Facility	IV		1	
Long Pond State Access Area	IV		13	
Long Pond State Boat Launching Facility	IV	4		
Mamasasco Lake State Boat Launching Facility	II		2	
Moodus Reservoir State Boat Launching Facility (2)	III		2	
Muddy River State Access Area	II		1	
Mudge Pond State Boat Launching Facility	I		1	
Mystic River State Access Area	IV		1	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Niantic River State Boat Launching Facility	III		3	
North Farms Reservoir State Access Area	II		70	
North Farms Reservoir State Boat Launching Facility		1		
Old Saybrook State Boat Launching Facility	III		1	
Park Pond State Boat Launching Facility	I	1		
Pataganset Lake State Boat Launching Facility	III		2	
Pawcatuck River State Access Area	IV		12	
Point Breeze	IV		13	
Pond Brook State Boat Launching Facility	I		1	
Powers Lake State Boat Launching Facility	III		2	
Quinebaug/Shetucket River Junction State Access Area	IV		1	
Quonnipaug Lake State Boat Launching Facility	III		1	
Rainbow Reservoir State Boat Launching Facility	I		3	
Rogers Lake State Boat Launching Facility	III		1	
Saugatuck River State Access Area	II		4	
Shetucket River State Access Area	IV		1	
Silver Lake State Access Area	I		17	
Silver Lake State Boat Launching Facility		1		

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
Thames River (Groton) State Access Area	IV		1	
Thames River (New London State Boat Launching Facility)	V	1		
Tollgate Pond State Access Area	II		5	
Tyler Pond State Boat Launching Facility	I		1	
Walker Reservoir State Access Area	III		1	
Waumgumbaug Lake State Boat Launching Facility	III		2	
Wauregan Reservoir State Access Area	IV		1	
West Hill Pond State Boat Launching Facility	I		2	
West Side Pond State Boat Launching Facility	I		1	
Winchester Lake State Boat Launching Facility	I		1	
Windsor Locks State Access Area	I		4	
Wononskopomuc Lake State Access Area	I		1	
Wilson State Boat Launching Facility	I		1	
Windsor State Access Area	I		3	
Wood Creek Pond State Boat Launching Facility	I		2	

<u>WATER BODY</u>	<u>ACREAGE</u>	<u>TOWN</u>	<u>RESTRICTIONS</u>
<u>10. STATE-OWNED WATER BODIES</u>			
Amos Lake	105.1	Preston	
Avery Pond	50.6	Preston	
Barber Pond	13	Bloomfield	Federal Funds
Bashan Lake	276.3	East Haddam	
Beachdale Pond	45.9	Voluntown	
Beaverbrook Pond	11	Windham	
Beseck Lake	119.6	Middlefield	
Bigelow Pond	18.6	Union	
Billings Lake	105.1	North Stonington	
Black Pond (partial ownership)	75.1	Meriden	
Black Rock Pond		Watertown	
Bolton Lake (lower)	178.4	Bolton	
Bolton Lake (middle)	150.4	Bolton	
Bolton Lake (upper)	35.4	Bolton	
Bolton Notch Pond	23	Bolton	
Breakneck Pond	104.7	Union	

<u>WATER BODY</u>	<u>ACREAGE</u>	<u>TOWN</u>	<u>RESTRICTIONS</u>
10. <u>STATE-OWNED WATER BODIES</u>			
Burr Pond	85	Torrington	
Carlson Pond		East Hampton	
Cedar Lake	68	Chester	
Chapins Pond		Mansfield	
Crystal Lake	35.5	Middletown	
Darling Pond		Chaplin	
Day Pond		Colchester	
Dodge Pond	40	East Lyme	
Dooley Pond	28	Middletown	
Eagleville Pond	80	Coventry-Mansfield	
Emmons Pond		Hartland	
Forster Pond		Killingworth	Former owner-life use
Gardner Lake (partial ownership)	486.8	Salem-Montville	
Gay City Pond		Hebron	
Glasgo Pond	184.2	Griswold-Voluntown	
Gorton's Pond	70	East Lyme	

<u>WATER BODY</u>	<u>ACREAGE</u>	<u>TOWN</u>	<u>RESTRICTIONS</u>
Green Falls Reservoir	46.9	Voluntown	
Hackney Pond		Haddam	
Hall's Pond	82.3	Eastford	
Hampton Reservoir	32.2	Hampton	
Hart Pond		Cornwall	
Hatch Pond	61.5	Kent	
Haystack Mountain Pond		Norfolk	
Higginum Reservoir	32	Haddam	
Hodge Pond	5	Voluntown	
Holbrook Pond	72.5	Hebron	
Hopeville Pond	149.4	Griswold	
Horse Pond		East Lyme	
Howells Pond	17.3	Hartland	
Josmuetown Pond	3.4	Lyme	
Lake Louise		Bloomfield	
Lantern Hill Pond	15.1	Ledyard-North Stonington	
Lily Pond		Bethel	

<u>WATER BODY</u>	<u>ACREAGE</u>	<u>TOWN</u>	<u>RESTRICTIONS</u>
Mahoney Pond	15.5	Franklin	
Mansur Pond		Chaplin	
Miller Pond		Durham	
Mohawk Pond	15.2	Cornwall	
Moodus Reservoir (partial ownership)	451	East Haddam	
Morey Pond	52.07	Union	Federal Funds
Mount Tom Pond	61.5	Litchfield	
Natchaug Forest Pond		Eastford	
North Farms Reservoir	62.5	Wallingford	
Northfield Pond	24.9	Litchfield	
Norwich Pond	27.5	Lyme	
Nystrom Pond	20	Litchfield	
Pachaug Forest Pond		Voluntown	
Pachaug Pond (partial ownership)	830.9	Griswold	
Paper Mill Pond		Oxford	
Park Pond	76.7	Winchester	

<u>WATER BODY</u>	<u>ACREAGE</u>	<u>TOWN</u>	<u>RESTRICTIONS</u>
Pataconk Lake		Chester	
Maintenance Garage Pond		Farmington	
Pataganset Lake	123	East Lyme	
Pickerel Lake	88.6	Colchester	
Picketts Pond		Derby	
Pierrepont Pond		Ridgefield	
Pine Acres Lake		Hampton	
Porter Pond		Voluntown	
Powers Lake	152.6	East Lyme	
Putnam Park Pond	22	Redding	
Quaddick Reservoir	466.8	Thompson	
Rangers Headquarters Pond		East Hampton	
Ross Marsh Pond		Killingly	
Schreeder Pond		Killingly	
Silver Lake	151	Berlin	
South Pond		Bethel	

<u>WATER BODY</u>	<u>ACREAGE</u>	<u>TOWN</u>	<u>RESTRICTIONS</u>
Sterretts Pond		Bethel	
Stratton Brook Pond		Simsbury	
Tankerhoosen Lakes	24.6	Vernon	
Tetrault Pond	60	Killingly	
Toll Gate Pond	5	Greenwich	
Uncas Lake	69	Lyme	
Unnamed Pond		Durham	
Unnamed Pond		Haddam	
Unnamed Pond		Voluntown	
Unnamed Ponds (2)		Hartland	
Walker Reservoir (partial ownership)	10	Vernon	99 year lease
Wauregan Reservoir	110	Plainfield	
Werner Woods Pond		Canton	
Wharton Pond		Wallingford	
Winchester Lake	229	Winchester	

<u>WATER BODY</u>	<u>ACREAGE</u>	<u>TOWN</u>	<u>RESTRICTION</u>
Wood Creek Pond (partial ownership)	151	Norfolk	
Wyassup Lake	92.7	North Stonington	

PRIMARY LAND CLASSIFICATION SUBCLASSIFICATION	REGION	SUBCLASS ACREAGE	PRIMARY CLASS ACREAGE	RESTRICTIONS
11. <u>INDIAN RESERVATIONS</u>				
Pequot - Eastern State Indian Reservation	IV		225	
Pequot - Western State Indian Reservation	IV		213	
Golden Hill State Indian Reservation	II		0.24	
Schaghticoke State Indian Reservation	I		400	



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**Recreation Demand in
Connecticut**

APPENDIX CRECREATION DEMAND IN CONNECTICUTIntroduction

Since the passage of the Land and Water Conservation Act in 1965 and the resulting formation of the U.S. Bureau of Outdoor Recreation, the various states have become deeply involved in the SCORP preparation and update process. A key element of this analysis is the determination of apparent unmet needs, preparatory to proposing an action plan to correct them. The most obvious way to determine needs is by comparing the available supply of recreational facilities with some measure of apparent demand for such facilities; hence the need to calculate both factors in comparable terms.

In the ensuing years, a great deal of time and money nationwide have gone into this process and particularly into the quantification of recreation demand. Some scholars have delved into the entire issue of leisure time and its use, as all elements thereof were thought to be competitors for a share of available leisure time. Others have hewed more closely to recreation or at least the outdoor recreation component of it. However, most seem to have become bogged down in the attempt to construct a simple, clear methodology for estimation of demand.

One problem was whether to stick strictly to actual or observed demand or to consider latent demand, or the total possible amount of demand which a person could generate. If latent demand was to be considered, at what point then could a "reasonable" standard of demand be located, for not everyone can live in a beach or lakeside home offering unlimited opportunity for swimming for example. Following this train of thought,

it quickly became apparent that demand was largely a function of income and perhaps of education. The wealthier and better educated a person was, the more he would tend to participate in recreational activities and to expect greater available recreational opportunity. However, the intent of the Land and Water Conservation Fund seemingly was not to meet the absolute needs of people who frequently were financially able to provide their own private opportunities, but rather to provide a basic threshold or satisfactory minimum standard of outdoor recreation opportunity for all. Therefore Connecticut SCORPs historically have tended to rely on standards which hopefully indicated a "reasonable" level of demand which should be the responsibility of various levels of government to address.

Furthermore, Connecticut's SCORP planning has relied on standards of "instant demand" or "instant use," a term more or less equivalent to average peak day use or that use likely to be experienced for swimming for example on an average summer weekend day. In this way, "instant use" could be readily compared to units of capacity or "instant capacity." Thus no effort has been made to compute total annual or seasonal activity days for given sports as has been done in many other demand studies as well as Federal studies.

Connecticut's 1978 SCORP Update generally follows the lead of earlier plans in estimating demand for outdoor recreation. Although an ongoing New England-New York Recreation Demand Study should result in a methodology for calculating both demand and inter-state flows of demands (hitherto a largely unquantified factor), SCORP updating deadlines mandated that this revision rely on presently available materials. Thus the first step taken was to review the literature and in particular the SCORPs of certain

roughly comparable states to obtain possible leads as to methodology and as to likely rates of participation in given recreational activities.

The three studies most heavily relied upon in this process were: the New York SCORP, a related Tri-State Planning Commission survey which included approximately one-half of Connecticut's population (Figure C-1), and the Massachusetts SCORP. The first of these provided a statistically sophisticated yet logical and clear assessment of demand, especially in its "design day" approach. Apparently more or less equivalent to Connecticut's "instant demand," this approach provided a way to convert total activity days into the level of usage likely to be expected on an average peak day. Also, the Tri-State study, which used the same survey data as the New York SCORP, permitted the expanded use of this data and methodology over a large portion of Connecticut. Although the Tri-State sample with its presumably somewhat more urban character may not perfectly reflect the precise nature of the entire Connecticut population as a whole, the table below shows that the socio-economic characteristics of the survey sample and the overall state population are comparable. On this basis it was assumed that the Tri-State sample was fairly representative of the state population and in turn inferences could be made with regard to outdoor recreation participation on a statewide basis.

Also, the Massachusetts SCORP was found to have many useful insights, especially on the effective length of season of certain sports and on changing trends in relative popularity of selected activities. As another useful check, various HCRS materials including a 1972 study for the Northeast and preliminary data from the new National Outdoor Recreation Plan were consulted.



Table C-1
 COMPARISON OF SOCIO-ECONOMIC CHARACTERISTICS
 OF TRI-STATE SAMPLE AND 1970 CONNECTICUT CENSUS

<u>Family Income</u>	<u>Tri-State Sample^a</u> <u>(%)</u>	<u>Connecticut</u> <u>Pop. (%)^b</u>
\$5000	15.3	13.6
5-10,000	21.8	25.9
10,000	62.8	60.5
<u>Age Distribution</u>		
15-18	9.7	10.0
19-64	76.9	76.7
65 and older	13.4	13.3
<u>Sex</u>		
Male	43.9	48.5
Female	56.1	51.5
<u>Race</u>		
Black, Spanish speaking	8.4	8.4
Other	91.6	91.6

^a Based on unpublished survey data from Tri-State Regional Planning Commission. 1976.

^b Based on U.S. Census data from 1970.

The next step was to evaluate such selected materials to determine whether they could, either separately or in combination with others, provide a statistical estimate of "instant demand." A key element in this analysis was to look for quantitative similarities or groupings of findings between different approaches which might indicate a reasonable degree of statistical validity. Therefore subjective interpretation was added where necessary to develop demand standards. A mix of approaches was therefore utilized to obtain standards of instant demand, depending upon which seemed to provide the most relevant and valid information.

In summing up, it has been the experience of SCORP planners in Connecticut that quantitative estimation of recreation demand is a most inexact art. Interestingly HCRS also has recently deemphasized the role of demand assessment and has instructed states preparing SCORP revisions to do likewise. In light of the lack of statistically solid empirical data, Connecticut's approach with an emphasis on common sense blending of available data and intuition seems to be a practical, efficient method of attacking this project.

Discussion by Major Recreational Activity.

The following section offers an estimation of recreational demand in Connecticut for all major activities and/or those for which some use data or assumptions are available, grouped again by general activity system:

1. Water Activity System

a. Swimming, a key activity for which use data is comparatively easy to obtain. In terms of total participation, swimming indeed ranks as a very popular sport as seen in the table below.

<u>Source</u>	<u>Percent of Population Participating Annually in Swimming</u>
New York State	50.7
Tri-State (Total)	55.2
Tri-State (Conn. portion only)	47.1
Massachusetts	
Pool	42.3
Other	66.8
HCRS (1972 Northeastern Study)	
Pool	20
Other	43

Although several of these sets of data are difficult to compare because they do not give a total participation rate for swimming, it is clear that a very large segment of the population customarily engages in this activity at some time in the year. For Connecticut as a whole, a participation rate of approximately 50 percent would seem reasonable, especially in view of the Tri-State and New York State data which generally seem to be statistically the most valid indications of demand.

However, translation of total participation to instant participation is a step for which few guidelines seem available. One is a form The New York State SWRP, which indicates that 20-25 percent of all participants in "Day Use" recreation* enter the market on a so-called "Design Day."¹ As this seems to mean an average peak use day, or an average summer weekend

¹* Swimming is considered to be the core element of "Day Use" recreation with Picnicking an ancillary activity. Connecticut's SCORP staff agrees with this New York assessment and therefore will not discuss Picnicking separately as a prime recreational activity. Instead it should be planned for as a part of the normal day use recreational experience.

day, this analysis has considered the New York "Design Day" concept equivalent to Connecticut's traditional "Instant Demand" approach.

In terms of numbers of people, the New York approach applied to Connecticut would mean an instant swimming demand of about 12.5 percent of the total population. Earlier subjective interpretation of preliminary data from a mid 1960s state-wide telephone survey indicated an apparent instant resident demand for public swimming facilities of about 10 percent or so of the total population, with total swimming probably in the range of 12-15 percent. Later statistical analysis of this survey data predicted a 1975 instant swimming demand of 12.3 percent at state parks, which presumably can be translated to mean "public facilities." Therefore the general validity of Connecticut's historic demand measures seems borne out.

However this assessment conservatively will assume an instant demand for public swimming facilities of from 10-12 percent of the state's population. Therefore Connecticut-generated instant swimming demand as of 1975 was estimated to be approximately 310,000 to 375,000 persons on an average peak weekend day.

b. Boating. Determination of boating demand is even more difficult, because many surveys discuss boating as a whole and do not distinguish between motorized and non-motorized boating. Nevertheless, this assessment has attempted to cover each separately.

1. Motorized boating, the segment which seems to involve the largest segment of all boaters and for which the best use data exists. Participation data from various surveys is as follows:

<u>Source</u>	<u>Percent of Population Participating Annually in Motorized Boating</u>	
New York State	18.0	(All boating)
Tri-State (Total)	23.3	(All boating)
Tri-State (Conn. portion only)	23.4	(All boating)
Massachusetts	14.9	(Power only)
HCRS (1972 Northeastern Study)	11	(Power only)

Although no data on motorized boating above can be obtained from the New York and Tri-State surveys which generally have seemed to give the most accurate assessment of demand for Connecticut and surrounding areas, from the other data one may apparently conclude that approximately 10-15 percent of Connecticut's population engages in this sport annually. A cross check on this assumption can be seen in power boat registrations which are approximately 70,000 annually (not including a substantial and growing number which reportedly are registered out-of-state by their Connecticut owners). Assuming an average family size of three to four people plus non-owners with access to use of a boat would seem to imply that some 10-15 percent of state residents have and presumably exercise the opportunity to engage in this sport annually.

A New York State conversion factor of 12 percent use by participants on a design day can then be used to estimate instant demand on an average peak day. Assuming the general validity of the 10-15 percent participation rate discussed above, instant use may therefore be approximately 40,000 to 60,000 people. Assuming again an average of four people per boat, some 10,000 to 15,000 power boats may be utilizing Connecticut waters on an average peak weekend day.

2. Non-motorized boating, consisting of canoeing, kayaking, and sailboating in particular. Unfortunately very little statistical data is available on these activities, beyond a Massachusetts annual participation rate of 18.5 percent for sailing and canoeing and preliminary data from a recent HCRS study which seems to indicate a New England rate of 17 percent for canoeing/kayaking and 19 percent for sailing. As these figures subjectively seem high, they have not been utilized in this SCORP and no quantitative assessments of demand have been made.

2. Wildlife Sports

a. Fishing. Measures of the popularity of fishing are varied, consisting of license sales (which support the opinion that few non-residents fish in Connecticut), DEP staff insights on peak and average peak use, and survey data. The simplest to use are the first two types. For example, fishing and combination license sales totalled 220,000 in 1975 (7 percent of the state's population). When the many non-licensed anglers, including children¹ and marine fishermen² are added, DEP staff feel that at least 20-25 percent of all Connecticut residents fish in a given year.

In terms of instant use, DEP staff estimate a total of 60,000 to 70,000 fishermen on the average summer weekend day (60 percent marine and 40 percent inland). However the major seasonal peak is the opening day of the trout season which seems to attract a minimum of 100,000 fishermen, versus a minimum of 20,000 daily on normal spring weekends.

¹ Surveys have indicated at least one non-licensed juvenile fisherman accompanying every licensed fisherman plus many juvenile fishermen participating with an adult.

² See especially National Marine Fishery Service 1973-1974 survey which indicated 9,000,000 men days/year of saltwater sport fishing in Connecticut or 12 days/year by the average fishermen.

<u>Source</u>	<u>Percent of Population Participating Annually in Fishing</u>
New York State	19.0
Tri-State Region (Total)	21.3
Tri-State Region (Conn. portion only)	23.7
Massachusetts	20.4
BOR (1972 Northeastern Study)	+16
Sindlinger Sports Participation Report (National Statistics-1977)	19.5

From this data it seems safe to assume that participation level in the range of 20-25 percent is probably valid. In particular, it is likely that the level for the state as a whole equals if not exceeds that for the Tri-State portion of Connecticut. Although representing only a minor differential perhaps explainable by error in the sampling process, the comparatively low participation rate for New York State as a whole with its large rural population is mildly puzzling. Possibly one may see here the marine location of a Greater New York offsetting its highly urban character and expected lower participation rates.

The only method of translating total annual participation into daily use pressure was found in New York's SCORP, which determined that 5.0 percent of all fishermen were apt to participate on a normal summer weekend day. Although Connecticut SCORP staff subjectively feel that this daily level of use seems low, the 5.0 percent figure was applied against the 20-25 percent total participation rate (600,000-750,000 people) and produced a summer weekend day participation level in the range of 30,000 to 40,000 a volume of use which seems to be low. Therefore a decision was made to use the DEP staff assessments as apparently the most valid estimate of fishing activity in Connecticut.

b. Hunting. As with fishing, the volume of hunting activity can be estimated by license sales, DEP staff opinions and survey data. License sales, again almost wholly to residents, are approximately 110,000 annually. When unlicensed hunters (16.3 in a 1965 National Survey of Fishing & Hunting) are added, Connecticut residents generate roughly 140,000 hunters, or 4.5 of the population. Of these, DEP staff estimate an opening day participation of 50,000 to 60,000 and a normal weekend day demand in the range of 20,000 to 25,000.

Survey data from various sources indicates the following participation rates:

<u>Source</u>	<u>Percent of Population Participating Annually in Hunting</u>
New York State	8.1
Massachusetts	3.8
HCRS (1972 Northeastern study)	± 2
Sindlinger Sports Participation Report National Statistics 1977)	11.7

Of these, the ones with most relevance to Connecticut are New York and Massachusetts which bracket the 4.5 percent participation rates developed above from license figures. Therefore, an assumption was made to rely in the 4.5 percent annual participation rate.

However, use of the New York SCORP's design day concept proved less successful. In New York, 10 percent of all hunters seem to hunt on a design day, again a figure which subjectively seems very low. However, when applied to Connecticut's total of 140,000 hunters, a design day use level of only 14,000 results. As this seems well below the levels reported by DEP staff, a decision was made to go with the opinions of the staff experts.

3. Camping

Estimation of demand for camping in Connecticut is more difficult than for many other recreational activities because of the substantial volumes of inter-state flows of users. Thus for example, a Connecticut Interregional Planning Program survey in the 1960's indicated that over 80 percent of Connecticut residents who took a vacation did so out of state. As camping is largely a vacation type of recreational outing, one may therefore assume a very substantial out-flow of resident generated demand.

At the same time, origin and destination surveys of State campground users in Connecticut show a sizable number of out-of-staters. Largely comprised of New Yorkers utilizing parks in western Connecticut, percentages of non-residents at sample parks ranged from less than ten to as high as 29 percent.

Total survey data provides the best guideline on general magnitudes of use. Data collected from various sources was as follows:

<u>Source</u>	<u>Percent of Population Participating Annually in Fishing</u>
New York State	9.2
Tri-State Region (Total)	12.2
Tri-State Region (Conn. portion)	11.4
HCRS (1972 Northeastern study)	<u>±11</u>
Massachusetts	20.1

With an interesting grouping of rates in the 10-12 percent range, especially as the Tri-State data reflects the apparent activity of 50 percent of Connecticut's residents, it seems safe to assume a likely Connecticut

participation rate of that magnitude. Converted to people, some 310,000 to 375,000 state residents seem to participate annually in camping.

In terms of estimating average peak daily use, recourse again was made to New York State's SCORP. Seemingly some 21 percent of all campers in that state did so on a "design day." If this guideline is generally applicable to adjoining Connecticut as seems likely, at least 60,000 and possibly up to 75,000 state campers are seeking accommodations on an average summer weekend.

4. Trail Oriented Activities

a. Walking & Hiking. Because of the difficulty in distinguishing amongst the various forms of hiking and particularly the casual nature walk and hiking variants and the varying definitions used in different SCORP analyses, it is impossible to accurately calculate the volume of "walking and hiking" use. This survey's results indicate the following wide range in participation rates:

<u>Source</u>	<u>Percent of Population Participating Annually in Walking</u>
New York	7.7
Tri-State (Total)	21.6
Tri-State (Conn. portion only)	20.2
Massachusetts	29.7
HCRS (1972 Northeastern study)	± 5

Assuming a roughly 20 percent rate for walking, broadly interpreted to include hiking, nature walks, backpacking, etc., at least 600,000 Connecticut residents enjoy this activity annually. However the same table perhaps

hints that walking more narrowly defined to include hiking alone (as in New York) may be no more than 30-40 percent of the total at most.

As the New York SCORP did not include day use conversion factors for walking or hiking, no estimates based on survey data can be made (Survey data also may be inadequate because of the small survey response rate for relatively low volume use sports such as hiking). Thus a most subjective assumption was made that, of the 600,000 or so nature-oriented walkers in the state, probably no more than 20,000 to 30,000 are apt to be so engaged on an average peak day.

b. Horseback riding.

Again estimation of demand must rely upon scattered survey data, as seen below:

<u>Source</u>	<u>Percent of Population Participating Annually in Horseback Riding.</u>
New York	8.0
Massachusetts	10.1
HCRS (1972 Northeastern Study)	±6

Therefore a safe assumption is that no more than 10 percent of state residents participate in horseback riding, with the rate possibly considerably lower. As no data on day use exists, an estimate must be purely subjective. Simply to fill a void, this SCORP therefore predicts a peak day use of no more than 20,000 to 30,000 people.

c. Skiing.

Scattered data on participating in downhill skiing is as follows:

<u>Source</u>	<u>Percent of Population Participating</u>
New York	7.4
Sindlinger Sports Participation Report (National Statistics 1977)	5.8
HCRS-Preliminary 1976 data	7.0

Therefore a Connecticut participation rate of at least seven percent seems reasonable. Using a New York SCORP conversion factor of 15 percent participation of all skiers on a design day, it seems likely that somewhat over one percent of the state's population, approximately 30,000 to 40,000 people, are apt to ski on an average winter weekend day, often at out of state ski areas.

Data on cross country skiing is much more sparse. Indeed the only solid indicator comes from BOR's preliminary 1976 data which shows a two percent participation rate. Again utilizing New York's 15 percent design day participation rate, possibly 10,000 Connecticut residents cross country ski on a similar winter weekend day.

d. Snowmobiling.

No satisfactory data on snowmobiling use in Connecticut exists, a problem magnified by the fact that only 20 percent of the estimated 50,000 snowmobiles in the state are registered in Connecticut and that the bulk of the utilizing generated by state residents takes place out of state. However snowmobiles themselves estimate that approximately 2,500 to 3,000 machines are in use in Connecticut on a peak day.

e. Trailbike Riding.

As with snowmobiling no solid data on participation or use exists. However, there are approximately 7,500 trailbikes and an

additional 20,000 combination road and trailbikes in Connecticut. Of these, trailbikes spokesmen estimate a peak day use in the range of 3,000 to 3,500 bikes.

f. Bicycling.

A fast-expanding sport in recent years, bicycling data indicates the following rates of participation:

<u>Source</u>	<u>Percent of Population Participating Annually in Bicycling</u>
New York	25.0
Tri-State (Total)	31.6
Tri-State (Conn. Only)	29.7
Massachusetts	41.0

Thus it is likely that at least 30 percent of Connecticut's population engages in bicycling, a total of roughly 1,000,000 people. However no data on instant use is available.

5. Other Activities

In addition to those recreational pursuits covered under the four major activity systems and which tend to be state-wide or regional in character, there are a number of other activities of more local nature. Some of the more significant of these and for which at least some participation data is available include:

a. Golfing.

Participation rates for golfing have been estimated in various studies as follows:

<u>Source</u>	<u>Percent of Population Participating Annually in Golfing</u>
New York State	7.8
Tri-State (Total)	10.0
Tri-State (Conn. portion only)	15.5
Massachusetts	12.8
Sindlinger Sports Participation Report (National Statistics-1977)	15.9

As golfing seems to be particularly an urban-suburban sport, the Tri-State figures are likely more valid than that for New York State as a whole. However the Tri-State (Conn. portion only) rate of 15.5 percent seems rather high, raising the question of validity based on sample size. Therefore a conservative estimate of participation in the range of 12 percent may be more reasonable.

To convert this usage to some function of "instant demand," New York State's guideline of 15 percent of the participating public entering the market on the design day was used. Therefore average weekend day demand in Connecticut is probably in the range of 55,000 people.

b. Tennis.

A very fast growing sport, as seen in the table below:

<u>Source</u>	<u>Percent of Population Participating Annually in Tennis</u>
Tri-State (Total)	22.7
Tri-State (Conn. portion only)	30.1
Massachusetts	29.4
Sindlinger Sports Participation Report (National Statistics-1977)	29.6

Thus a rate of participation of 30 percent seems reasonable, a level of involvement seemingly supported by preliminary 1976 BOR data. (In contrast HCRS data for the Northeastern States in 1972 indicated a rate of only six percent approximately, showing the booming nature of the sport). However, these figures do not indicate the division between the share warranted by indoor and outdoor tennis respectively, effecting the usefulness of the data considerably. In addition there are no available guidelines on conversion of participation in tennis to average peak day demand.

c. Outdoor Games/Field Games, including baseball, basketball, football, and the mushrooming sport of softball. Although some fragmentary data for specific sports exists, they are discussed as a related grouping in this discussion as follows:

<u>Source</u>	<u>Percent of Population Participating Annually in Outdoor Games</u>
HCRS (1972 Northeastern Study)	23.0
Massachusetts	29.4

Therefore when increasing participation is considered over the course of the year it is likely that 25 percent to 30 percent of Connecticut's residents play at least one of these sports. Obviously with such a mixed category, no peak day use estimates can be provided. However, as a point of information, a New York State design day guideline of nine percent of the participating public is listed.

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**Department of Community Affairs
Recreation Survey**

APPENDIX D

DEPARTMENT OF COMMUNITY AFFAIRS RECREATION SURVEY

The State of Connecticut Department of Community Affairs (DCA) surveyed by mail municipal recreation facilities for the purpose of assessing the adequacy of such local recreation facilities.¹ Of Connecticut's 169 municipalities, 116 participated (69 percent) in the survey.

Survey responses were analyzed by individual recreational activities for the following seven population size classes:

1. Under 3,500 population
2. 3,500 to 7,999
3. 8,000 to 14,999
4. 15,000 to 24,999
5. 25,000 to 39,999
6. 40,000 to 74,999
7. 75,000 and over

The adequacy of existing municipal recreation supply was assessed in relation to recommended minimum supply standards presented in Table D-1. The inherent limitations of basing a supply analysis on standards should be recognized. Such national standards are subjective, do not take into account municipal recreation programming, and should be used only as a guide. Despite these limitations, the DCA study provides some useful insights into the adequacy of existing municipal outdoor recreation facilities and the opportunities they provide.² The DCA study findings regarding local outdoor recreation are presented below by population size class.

¹ Department of Community Affairs, State of Connecticut. Results of Statewide Recreational Questionnaire. August, 1977.

² Natural swimming areas and picnicking areas were not included in the survey.

Table D-1

OUTDOOR RECREATION MINIMUM SUPPLY STANDARDS^a

<u>Item</u>	<u>Standard (#/population)^b</u>	<u>Source</u>
Total Acreage	15 acres/1,000	Capitol Region Council of Governments (CRCOG)
Baseball Diamond	1/6000	U.S. Dept. of Interior
Softball Diamond	1/3000	U.S. Dept. of Interior
Little League Diamond	1/2000	U.S. Dept. of Interior
Baseball Court	1/4000	CRCOG
Football Field	1/15,000	U.S. Dept. of Interior
Soccer Field	1/15,000	U.S. Dept. of Interior
Track	1/20,000	CRCOG
Tennis Court	1/2,000	U.S. Dept. of Interior
Handball Court	1/10,000	CRCOG
Platform Tennis	1/1,500	CRCOG
Lawn Bowling	On demand only	
Golf Course	1 hole/3000	U.S. Dept. of Interior
Natural Beach Areas	Capacity for 3% of total population	U.S. Dept. of Interior
Manmade Outdoor Pool	1/15,000	U.S. Dept. of Interior
Ice Skating Rink	1/50,000	U.S. Dept. of Interior
Ice Hockey Rink	1/50,000	U.S. Dept. of Interior
Roller Skating Rink	1/50,000	Conn. Dept. of Community Affairs
Boat Launch Area	1/public-owned waterbody for boating	Conn. Dept. of Community Affairs
Boat Dock/Marina	1/public-owned waterbody for boating	Conn. Dept. of Community Affairs
Camp sites	4 people per site; capacity for 3% total population	U.S. Soil Conservation Service (SCS)
Picnic Area	5 people per table; capacity for 3% of total population	U.S. Dept. of Interior
Ski Slope	On demand only	
Bandshell	1/25,000	U.S. Dept. of Interior
Rifle Range	On demand only	

^aDepartment of Community Affairs, State of Connecticut, Results of State-wide Recreation Questionnaire. August 1977.

^bStandards presented are not official standards of the Department of Environmental Protection or the State of Connecticut.

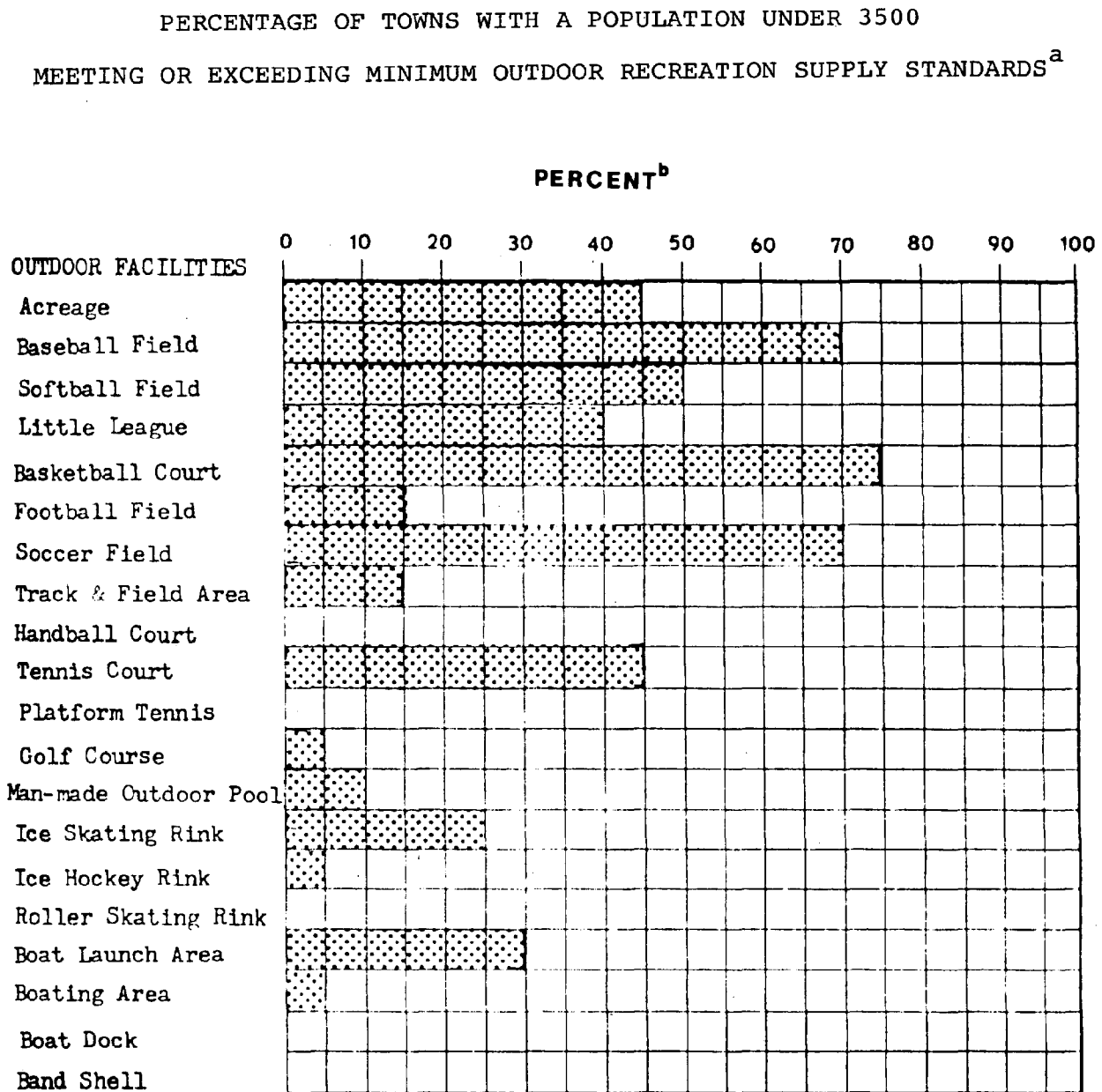
As seen in Figure D-1, Connecticut's smallest towns with populations less than 3,500 primarily provide the basic outdoor recreation facilities such as baseball, softball, and soccer fields plus basketball courts. For these types of facilities, 50 percent or more of the towns met or exceeded the standard.

Water-based recreation facilities such as outdoor pools, boat launching areas, boating areas, and boat docks are often not available. A maximum of 30 percent of the smallest towns meet the standards for these types of facilities. Facilities less in demand are generally not available in the State's smallest towns. These include handball courts, platform tennis, golf, ice hockey, and roller skating rinks. Overall acreage of recreational lands met the standard of 15 acres per 1000 population in 45 percent of the respondent towns.

The adequacy of outdoor recreation facilities for municipalities in the survey with a population of 3,500 to 7,999 is shown in Figure D-2. Acreage of recreation lands met or exceeded the standard in less than 30 percent of the towns surveyed in this population class. Baseball fields, soccer fields, basketball courts, and tennis courts are the only outdoor recreation facilities provided to standards by 50 percent or more towns in the survey. Softball and Little League fields appear to be lacking in sufficient quantities in the majority of towns. Water-based recreation facilities are also limited in supply. Adequate water-based facilities are provided by 35 percent or less of the respondent municipalities.

A broader range of outdoor recreation facilities is available in Connecticut towns of 8,000 to 14,999 population than those with smaller populations (Figure D-3). Baseball fields, football fields, soccer fields,

FIGURE D-1

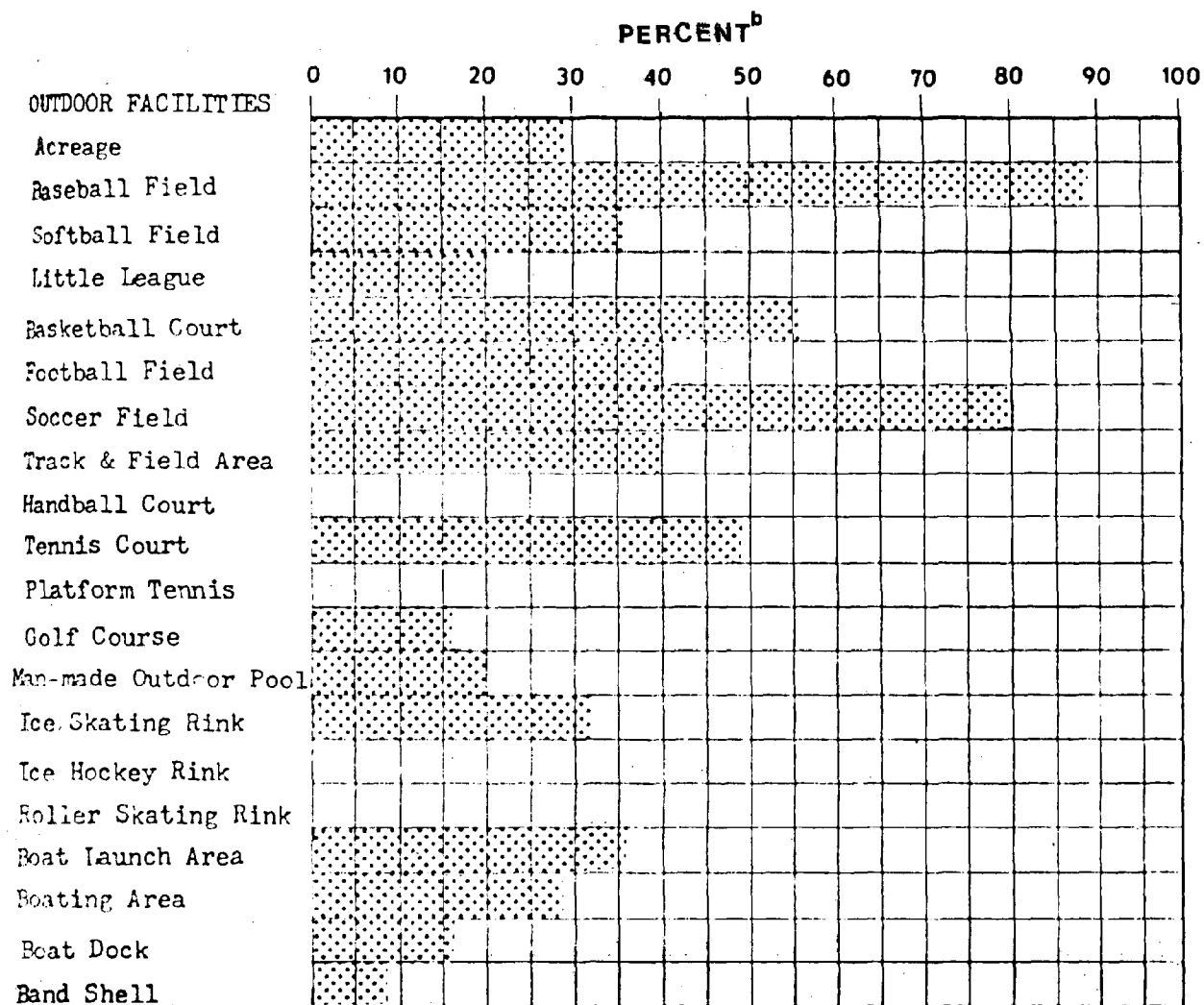


^aDepartment of Community Affairs, State of Connecticut.
Results of Statewide Recreational Questionnaire. August 1977.

^bBased on response from 20 towns (54%) in this population class.

FIGURE D-2

PERCENTAGE OF TOWNS WITH A POPULATION
OF 3500 - 7999 MEETING OR EXCEEDING
MINIMUM OUTDOOR RECREATION SUPPLY STANDARDS^a

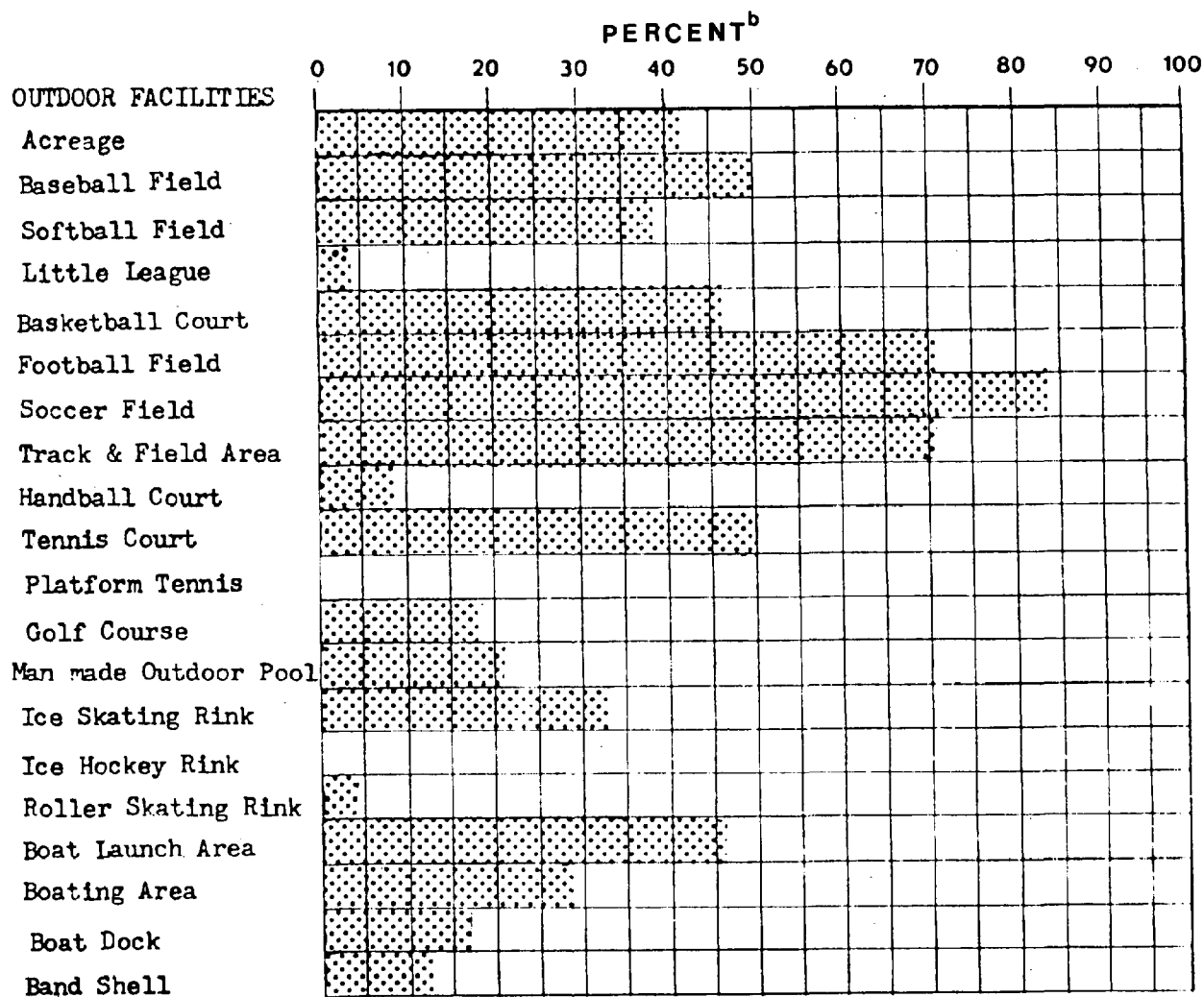


^aDepartment of Community Affairs, State of Connecticut.
Results of Statewide Recreational Questionnaire. August 1977.

^bBased on responses from 25 towns (69%) in this population class.

FIGURE D-3

PERCENTAGE OF TOWNS WITH A POPULATION OF
8000-14,999 MEETING OR EXCEEDING MINIMUM
OUTDOOR RECREATION SUPPLY STANDARDS^a



^aDepartment of Community Affairs, State of Connecticut.
Results of Statewide Recreational Questionnaire. August 1977.

^bBased on responses from 24 towns (71%) in this population
size class.

basketball courts, tennis courts, and field and track areas are provided in quantities which met the standards in 50 percent or more of the towns. Half of the municipalities provide adequate boat launching facilities. There are significantly fewer towns that met the standards for softball and Little League fields.

Half of the towns with populations of 15,000 to 24,999 met or exceeded outdoor recreation supply standards of four types of facilities (Figure D-4). These recreation facilities include softball fields, tennis courts, ice skating rinks, and boat launching areas. Noteworthy is the lack of Little League facilities. Total recreation acreage in approximately 35 percent of the responding municipalities met the standard of 15 acres per 1,000 population .

Towns in the next largest population category, 25,000 to 39,999 appear to be severely lacking in acreage of outdoor recreational lands (Figure D-5). In addition, a reduction in the number of towns meeting supply standards is seen. This is particularly noticeable in the various types of baseball facilities. However, five types of facilities are provided to 50 percent of standards; including soccer fields, track and field areas, tennis courts, golf courses, and boat launching areas.

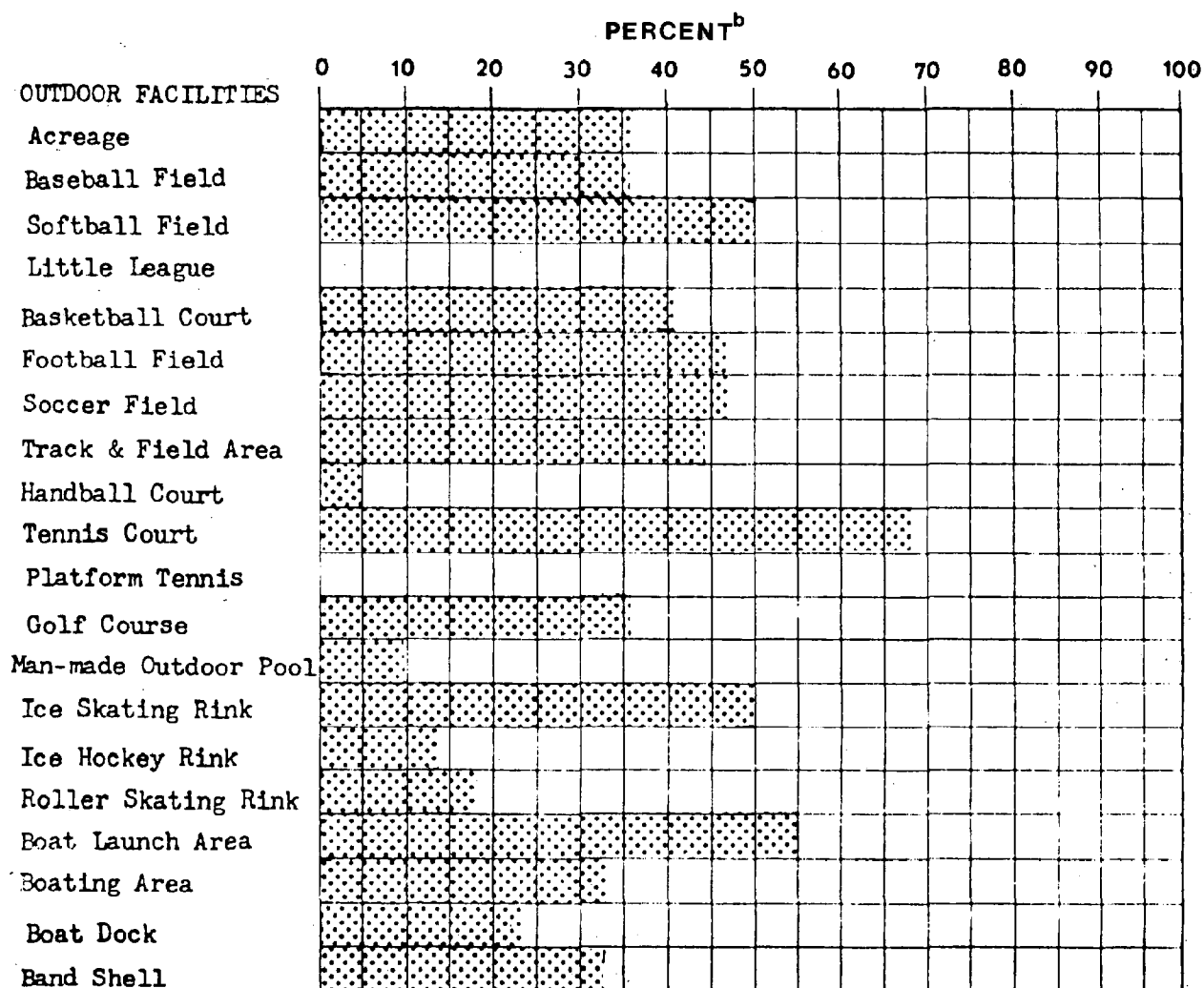
The reduction in the number of towns meeting supply standards continues in the municipalities within the 40,000 to 74,999 population size group (Figure D-6). Three types of outdoor recreation facilities; football, soccer, and boat launching; are provided to standards by 50 percent of the towns. Only twenty percent of these towns met or exceeded the standard for total acreage of outdoor recreational lands.

As illustrated in Figure D-7, Connecticut's most populated cities (75,000 and over), are severely lacking in most types of outdoor recreation

facilities. Basketball courts are the only sport facility available in any quantity in the State's largest municipalities. Baseball and track and field areas are extremely lacking.

FIGURE D-4

PERCENTAGE OF TOWNS WITH A POPULATION OF
15,000-24,999 MEETING OR EXCEEDING MINIMUM
OUTDOOR RECREATION SUPPLY STANDARDS^a

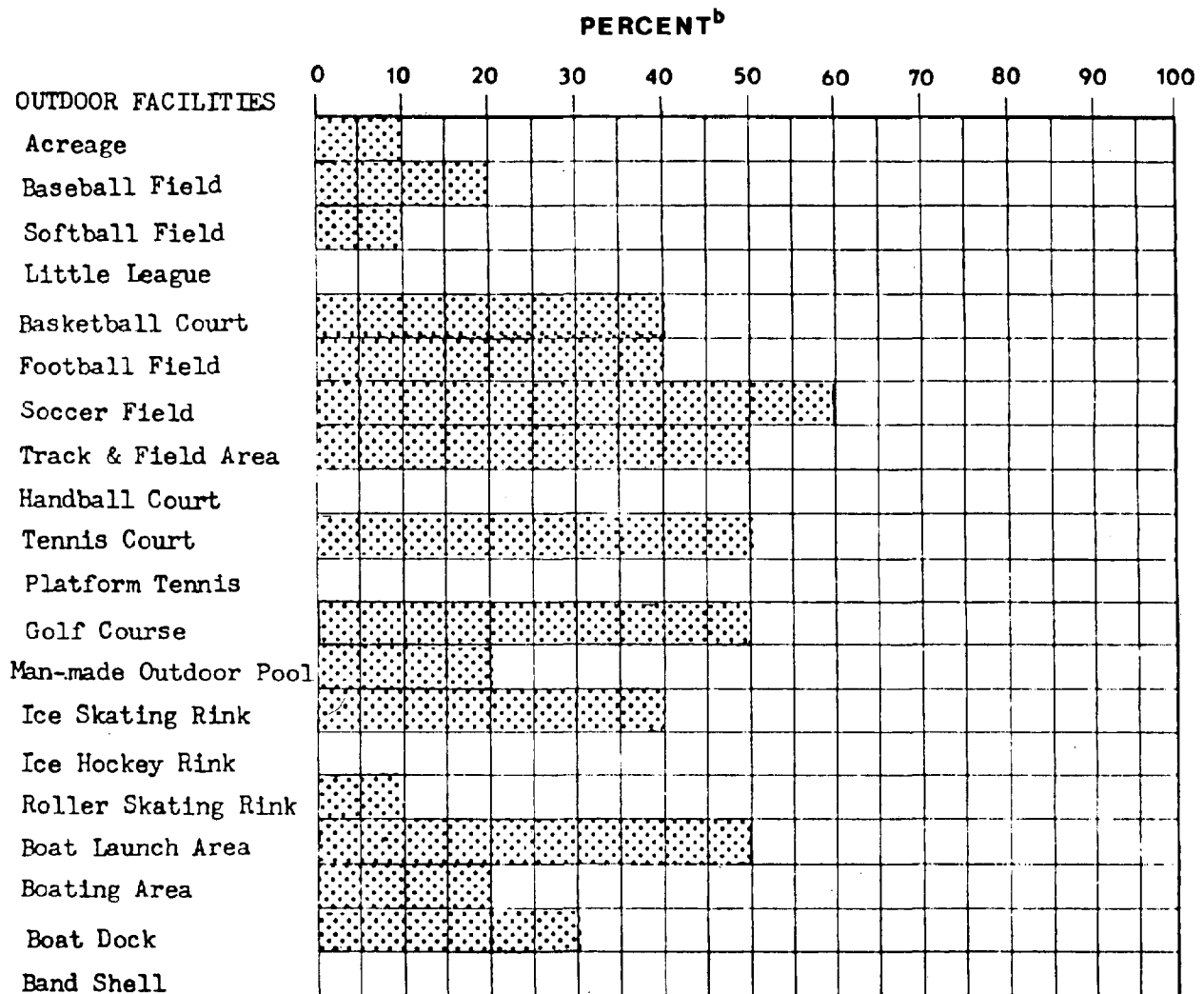


^a Department of Community Affairs, State of Connecticut.
Results of Statewide Recreational Questionnaire. August 1977.

^b Based on responses from 22 towns (79%) in population size class.

FIGURE D-5

PERCENTAGE OF TOWNS WITH A POPULATION OF
25,000-39,999 MEETING OR EXCEEDING MINIMUM
OUTDOOR RECREATION SUPPLY STANDARDS^a

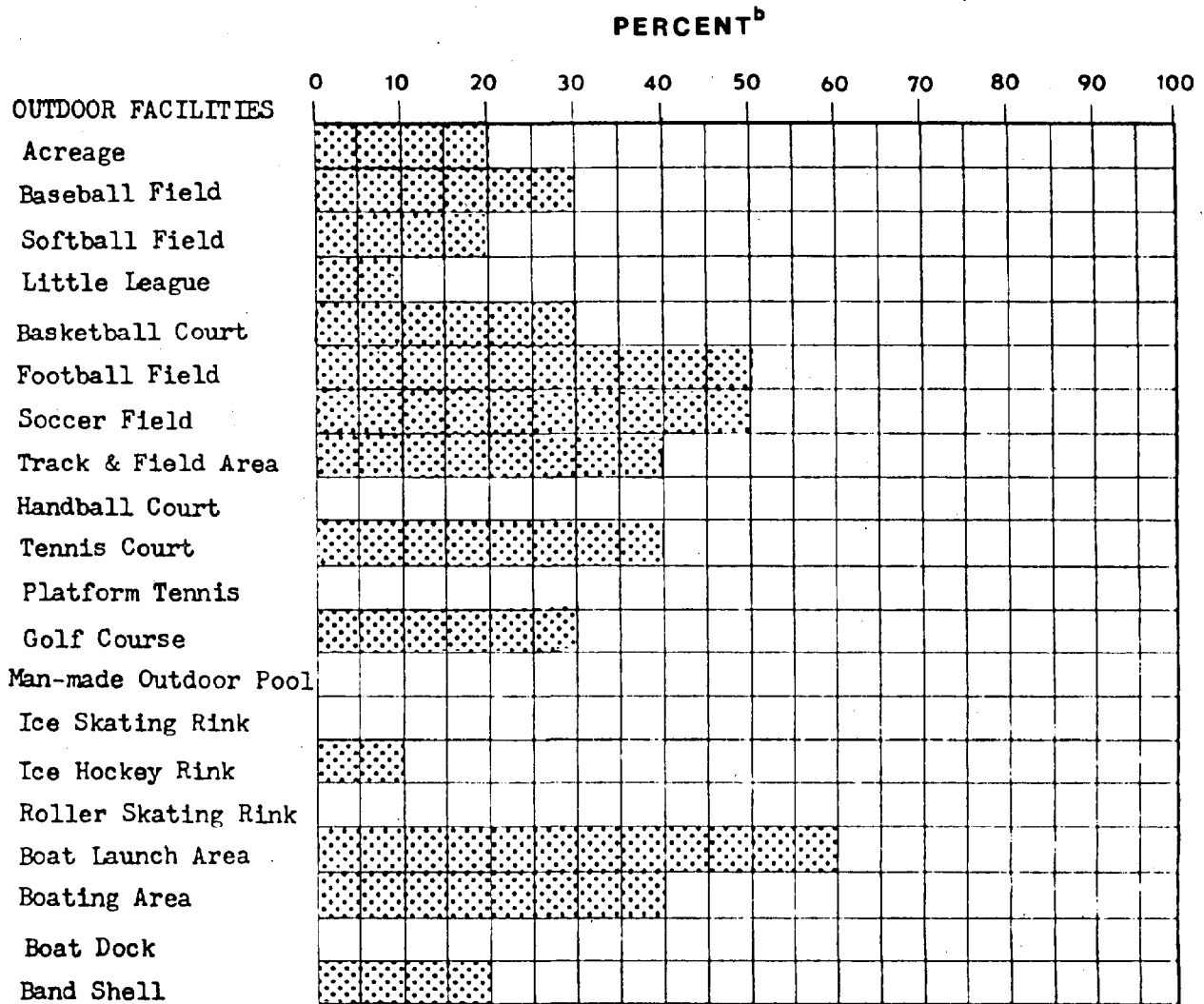


^aDepartment of Community Affairs, State of Connecticut.
Results of Statewide Recreational Questionnaire. August 1977.

^bBased on responses from 10 towns (77%) in population
size class.

FIGURE D-6.

PERCENTAGE OF TOWNS WITH A POPULATION OF
40,000 - 74,999 MEETING OR EXCEEDING MINIMUM
OUTDOOR RECREATION SUPPLY STANDARDS^a

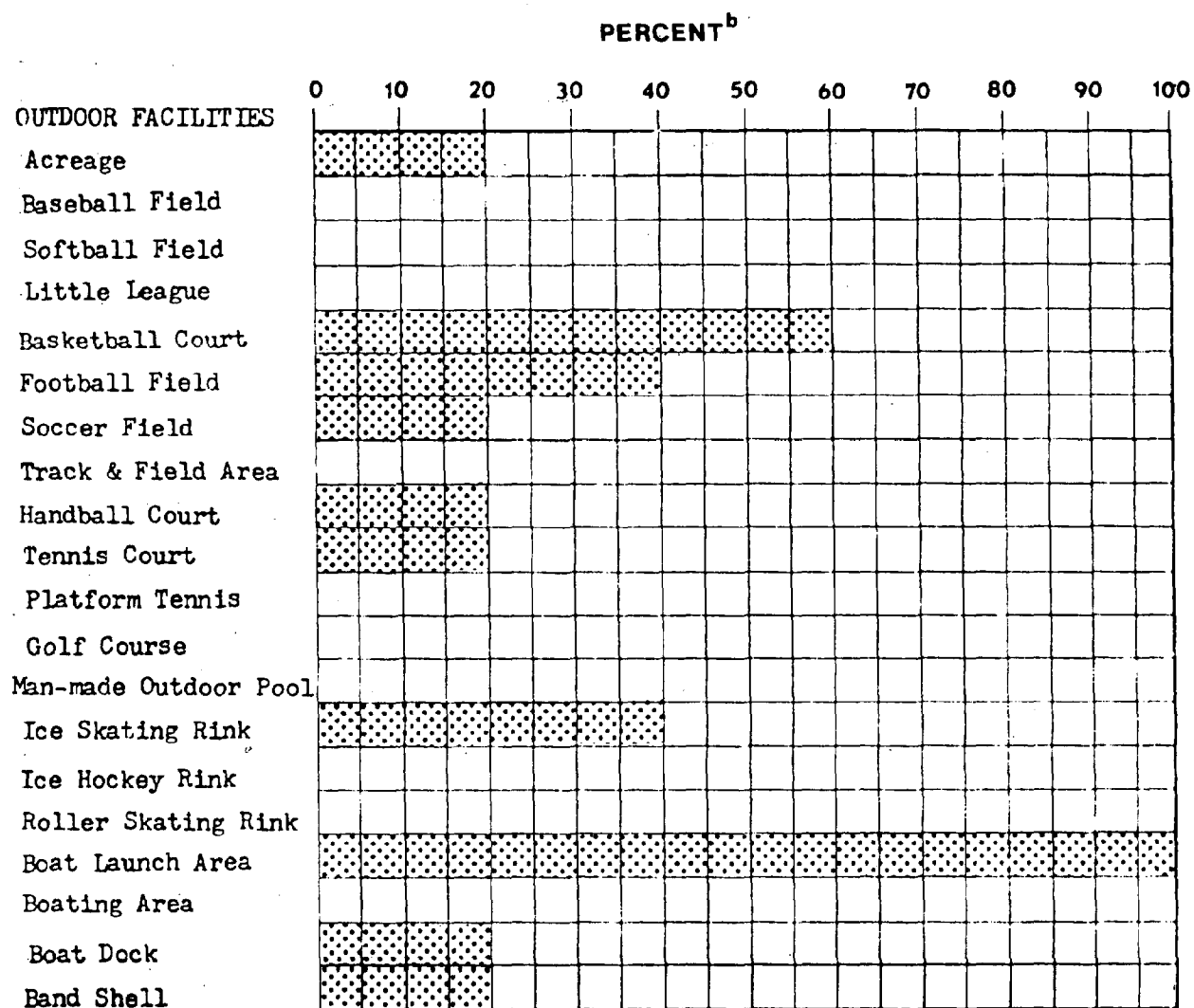


^aDepartment of Community Affairs, State of Connecticut.
Results of Statewide Recreational Questionnaire. August 1977.

^bBased on responses from 10 towns (71%) in population size class.

FIGURE D-7

PERCENTAGE OF TOWNS WITH A POPULATION OF
75,000 OR OVER MEETING OR EXCEEDING MINIMUM
OUTDOOR RECREATION SUPPLY STANDARDS^a



^aDepartment of Community Affairs, State of Connecticut.
Results of Statewide Recreational Questionnaire. August 1977.

^bBased on responses from 5 towns (71%) in population size class.

appendix

e

**Municipal Needs and
Preferences Survey**

APPENDIX E

MUNICIPAL NEEDS AND PREFERENCES SURVEY

Introduction

To help ascertain local perspectives on outdoor recreation needs in Connecticut at the municipal level, a mail questionnaire was sent to all 169 communities in the state (see at end of this Appendix). The selected contact was the Recreation and/or Park Director, the Parks and Recreation Commission Chairman, or where such a body was lacking, the First Selectman or other highest local official. Assisted by two series of follow up telephone calls, responses were finally received from 74 communities, or about 44 percent of the total as seen on the map following.¹ This was deemed a satisfactory rate of response to obtain the needed local point of view. Furthermore, it also reflected a satisfactory diversity of response, from urban, suburban, and rural towns alike.

Survey Findings

Responses to key survey questions were by board category of community (urban, suburban, rural) to determine any geographic patterns and generalizations which might be apparent. Discussion by selected survey questions was as follows:

Question 3. "Below are some problems or issues in outdoor recreation which confront some towns. Please rank these as to their importance in your town."

¹ As several responses were received late, subsequent to the completion of the analysis of the survey results, it was not possible to include them in the survey findings.

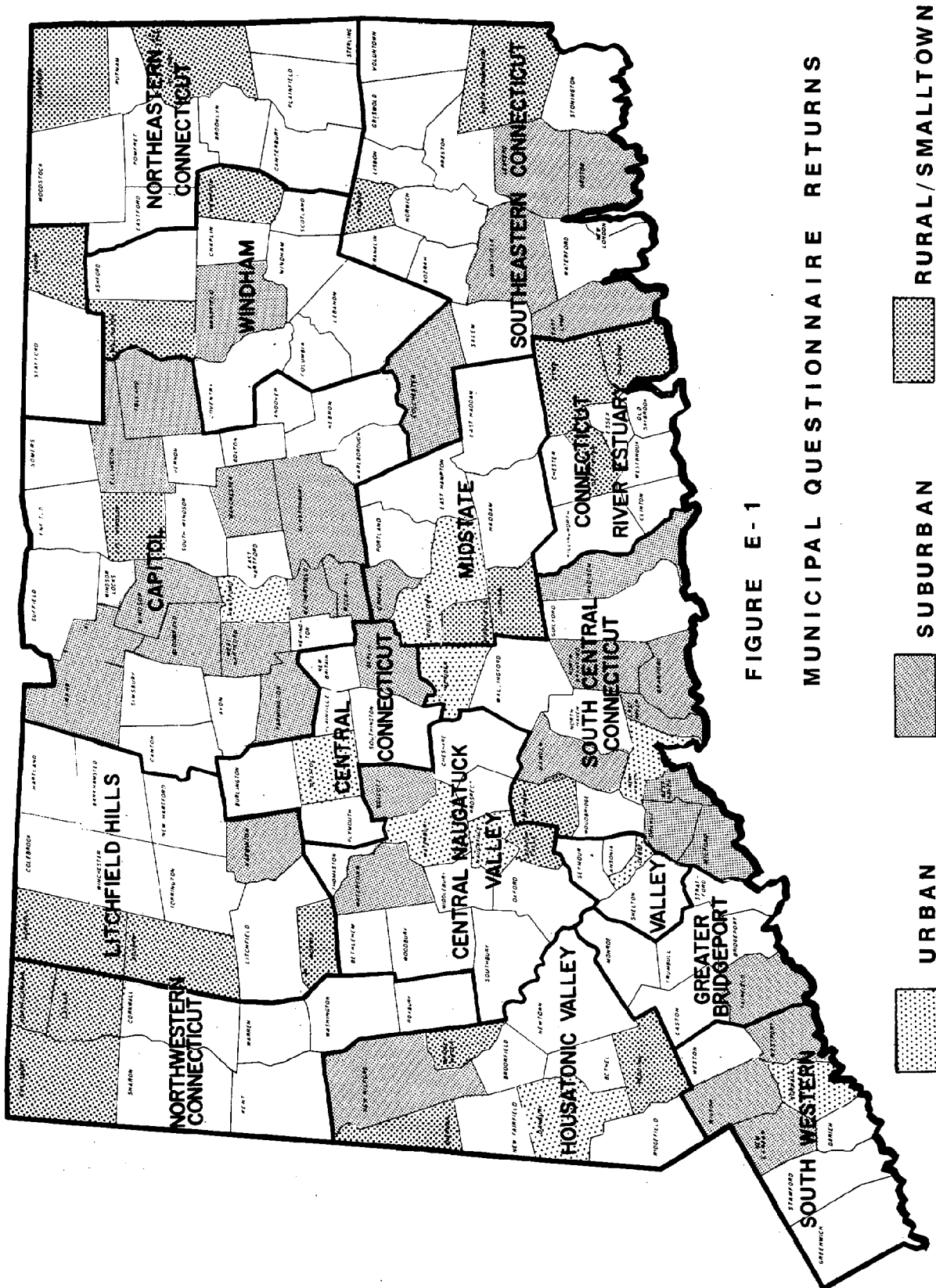


FIGURE E-1

MUNICIPAL QUESTIONNAIRE RETURNS

SOURCE: CONNECTICUT DEVELOPMENT COMMISSION 1968

The top five listed problems for each town were grouped as to their frequency of mention and tabulated as seen below:

Table E-1

RANKING OF OUTDOOR RECREATION PROBLEMS
CONFRONTING TOWNS BY PRIORITY

	Number of Towns		
	Problems #1-5	Problems #1-3	Problem #1
1. Lack of funds to develop	60	51	33
2. Lack of funds to maintain	50	33	8
3. Lack of neighborhood facilities	45	22	2
4. Lack of funds for programs	34	23	5
5. Lack of funds for acquisition	33	22	9
6. Vandalism and crime	29	12	1
7. Rapid Population Growth	21	14	6
8. Lack of suitable land for open space	17	12	4
9. Other	6	5	4

The above table indicates that the five top municipal recreation problems by order of priority seem to be: (1) lack of funds to develop, (2) lack of funds to maintain, (3) lack of facilities in neighborhoods, (4) lack of funds for programs, and (5) lack of funds for acquisition. Grouping into the top three problems and the number one problem further bear out this finding, especially in the case of lack of funds to develop. The survey findings indicate some internal variance in order of priority, indicating the perceived needs of various community subtypes.

Question 4. "Below are some recreational activities. Please indicate your estimate of where your town's residents are most likely to carry out the activity" (In Town, In Region, Other Part of State, or Out-of-State).

a. Swimming. Apparently most Connecticut residents do the bulk of their swimming in their home community, particularly along the coast where percentages exceed 90%. Exceptions

to this generalization include some smaller towns with no swimming facilities and some suburban and moderate-sized communities with inadequate facilities. The remaining participation in swimming seems to be largely oriented to regional facilities.

b. Boating-Motorized. Not surprisingly, local use has a majority or near majority share only along the coast or selected inland areas as around Lake Candlewood possessing a prime opportunity for bating. Examples of regional use seem scattered, occurring largely near Long Island Sound and in the Eastern Highlands, where the region contains suitable boating water. Use outside the region yet within the state is noteworthy in resource-poor inland central Connecticut where it tends to have a majority or at least substantial share of the total participation.

c. Boating-Non-Motorized. This is clearly a resource-based sport which frequently cannot be enjoyed in one's home town. Thus use seems to occur primarily in the same region or elsewhere within the state.

d. Fishing. Interestingly, fishing is largely a highly localized activity, generally carried out either in the home town or home region of the participant. The one major exception is seen in urbanized central Connecticut where the bulk of the use occurs outside the home region yet within the state, probably reflecting both its relatively resource-poor status and the interest in marine fishing on the part of inland anglers.

e. Hunting. As might be expected, the location of hunting in Connecticut is inversely related to the degree of density of settlement. Therefore local hunting dominates only in rural areas such as northwest or northeast Connecticut. Regional use is important throughout much of eastern Connecticut. Elsewhere State use is seen especially in urbanized Central Connecticut south to Milford. Out-of-State use dominates in southwestern Connecticut and easterly along the coast to the New Haven area, directly reflecting the lack of hunting opportunity in this area.

f. Camping. This activity is basically extra-regional in nature, with the location of use generally fairly evenly split in terms of dominant use between State (outside the home region) and Out-of-State use. The former is stronger in central inland Connecticut, with the latter seeming somewhat stronger in parts of northern and western Connecticut with their ready access to the Berkshires and other desirable camping areas to the north.

g. Hiking. This is basically an In-State activity. However use within the state is split amongst local, regional, and extra-regional locations with no clear geographic patterns of preference.

h. Picnicking. Generally speaking, picnicking tends to be a local or regional activity. Within this framework, local use predominates, with substantial regional use seen, especially in Greater New Haven and northern Hartford County.

i. Nature Study. Primarily a local or regional sport, with local use predominating. However, scattered traces of use outside the home region yet within the state are seen especially in Greater New Haven and northern Hartford County.

j. Snowmobiling. Because of its resource-oriented nature, limited snow accumulation in much of Connecticut, and the need for room in which to operate, snowmobiling demonstrates a large out-of-state flow of use, especially from southern/coastal and inland/urbanized areas.

k. Downhill Skiing. Again highly resource-based, this is a very largely out-of-state-oriented sport, except perhaps in some rural areas of eastern and western Connecticut. The main exceptions to this rule seem to be in the vicinity of major in-state ski areas.

l. Cross Country Skiing. This is primarily an out-of-state or extra-regional activity, with both categories combined usually having 75% or more of the total use. Although both are distributed state-wide, in-region or local cross country skiing seem somewhat stronger in snowy, rural northwest Connecticut.

m. Skating. Skating is basically a local sport, although there is substantial evidence of strong regional use. Perhaps the dominant use represents outside skating, with regional use reflecting indoor (arena) skating in towns located relatively near such arenas.

n. Golfing. Almost wholly a Local or Regional sport, golfing is enjoyed either in one's home town or in an adjoining town if local facilities are lacking.

o. Biking. Basically a local activity, with scattered evidence or strong Regional use.

p. Tennis. Almost wholly a local sport with scattered substantial Regional use, especially in rural, have-not towns.

q. Ball Playing. Nearly always a predominately Local sport. Scattered towns indicate major Regional use, perhaps indicating town team sports played out-of-town.

Question 5. "Please list any special outdoor recreation programs your town has for certain segments of the population (for example, children, teenagers, elderly adults, the handicapped, low-income families)."

By frequency of response, the ranking by order of the most common special programs was:

1. Swimming
2. Children's sports tied
2. Senior Citizen Programs
4. Baseball
5. Tennis
6. Teen programs
7. Playground
8. Handicapped
9. Football
10. Skating tied
10. Day Camp

Further ranking by general community type provided the following results:

1. Rural towns emphasized children's sports, followed by swimming, Teens and Tennis, Softball and Ballfields.
2. Suburban towns emphasized Children's sports, Teens, Senior Citizens.
3. Urban, Fragmentary responses were deemed to be of little use.

Question 5a. "Of these special programs, please indicate (1) those programs which you feel are most adequate for the population served and (2) those areas where you think a program is needed or improvement in an existing program is needed."

The resulting findings were as follows:

1. Which Special Programs Seem Adequate

- a. By frequency of ranking:
 - 1. Baseball
 - 2. Swimming, tennis, playground, children's sports (Tied)
- b. By Community type:
 - 1. Rural - Baseball, softball
 - 2. Suburban - Children's sports, swimming
 - 3. Urban - Fragmentary responses were deemed to be of little use.

2. Which Special Programs Seem Inadequate

- a. By frequency of ranking:
 - 1. Senior Citizens programs
 - 2. Skating
 - 3. Teen programs
 - 4. Swimming
- b. By Community Type:
 - 1. Rural - Seniors, also swimming and skating
 - 2. Suburban - Skating, teens, seniors, then swimming and fishing
 - 3. Urban - Seniors

Question 5b. "What have been the primary factors in the successful programs?"

By frequency of ranking, the following factors were felt to be the most critical ones:

- 1. Capable Staff People - leads in all community types, although money also significant in suburban towns.
- 2. Money
- 3. Facilities

Question 5c "What is needed to improve or start the other programs?"

Similarly the needed ingredients for success by order of ranking were felt to be:

- 1. Money
- 2. Capable staff people
- 3. Facilities

By community type, these opinions varied slightly as follows:

1. Rural - Money followed by People
2. Suburban - Money and People tied
3. Urban - Money

Question 6. "What types of facilities in your town are so heavily used that additional facilities appear to be necessary?"

By order of ranking, the following needs were perceived:

1. Swimming
2. Tennis
3. Ball fields
4. Playgrounds
5. Skating
6. Specialized ball fields (soccer, softball). However, if this category added to #3 (Ball fields) category becomes tied for #1 ranking.

Varying needs by general community type were:

1. Rural. Tennis, followed by Swimming and Ball Fields. Lesser needs included Playgrounds, Specialized Ball Fields, Skating.
2. Suburban. Specialized Ball Fields, followed by Swimming and Tennis, Ball Fields. Also noteworthy were Skating, Golf, Playgrounds and Bike Paths.
3. Urban. Only scattered responses received, with Ball Fields dominant.

Question 6a. "What new facilities will your residents most need in the next five years?"

By frequency of response, the resultant ranking was as follows:

1. Swimming
2. Tennis
3. Ball fields (If specialized Ball Fields added, this category becomes #1)
4. Playgrounds Tied
4. Skating

Question 6b. "What new facilities will your residents most need in the next twenty years?"

Closely echoing the findings of 6a above, the perceived most acute needs included:

1. Tennis
2. Swimming
3. Ball Fields (If specialized Ball fields added, this category becomes #2)
4. Skating Tied
4. Biking

Question 7. "Which new recreational programs (not development of physical facilities) would your town like to initiate?"

By frequency of ranking, the following programs were deemed desirable to initiate:

1. Senior Citizen
2. Biking tied
2. Swimming
4. Teen
5. Skating, Tennis

Comments by community type included:

1. Rural - The new responses received recommended Senior Citizens, Swimming, Teen, and Skating programs respectively.
2. Suburban - Senior Citizen programs again were deemed the top priority, followed by Soccer and Swimming, Biking, Teen, and Children's programs.
3. Urban - The very few responses received did not allow development of any generalizations as to priority.

Question 7a. "What has been the major obstacle to initiating a program such as you have just listed?"

By general ranking, the chief obstacles appeared to be

1. Money (roughly 60% of all responses)
2. Suitable people (21% of responses)
3. Facilities (17% of responses)

However, these perceptions differed somewhat by category of Community as seen below:

1. Rural - Money (72%), Facilities (18%)
2. Suburban - Money (50%), People (37%), Facilities (13%)
3. Urban - Money (75%), Facilities (25%)

Question 8. "What in your opinion is the major outdoor recreation need facing our State?"

Survey findings were as follows:

By Ranking

1. Beaches and money (Tied)
3. Open Spaces, Swimming, and Camping (Tied)
(If Beaches and Swimming combined - easily #1 in ranking.)

By Community Type

1. Rural - Swimming (Beach and swimming), Money
Also Open Space/Parks.
2. Suburban - Swimming dominant, Open Space/Parks, Money.
3. Urban - Scattered responses with no findings possible.

Question 9. "What should the State Comprehensive Outdoor Recreation Plan contain to be the most useful to you?"

Few responses to this question were given, with most simply saying "Information."

Question 10. "In which ways can the Department of Environmental Protection best assist your town in meeting its outdoor recreation needs?"

The ranking of responses was as follows:

1. Technical Assistance
2. Information, Technical information
3. Money (!)

Question 11. "In your recreational planning and management, what kinds of information would be most helpful?"

Responses included the following recommendations:

1. Technical information (over 75% of responses)
2. Funding Information

Question 12. "In regard to outdoor recreation, what is the State not doing that you think it should be doing?"

Responses by ranking included:

1. Technical information
2. State and regional parks
3. Money

Question 13. "In regard to outdoor recreation, what is the State presently doing that you think it ought not do?"

Interestingly enough, very few and scattered answers were made to this trial balloon question.

Question 14. "What do you see as your town's principal contribution to the Statewide recreation system?"

This rather philosophical question elicited a general response that provision of town facilities or of town facilities open to the public was the prime local contribution.

Conclusions

In general, this survey effort proved worthwhile, both in terms of percent of response and of general quality of response to specific queries. Particularly useful responses were received for Questions 3 through 8

which provided the new material for recommendations made elsewhere in this SCORP. On the other hand, Questions 9-14 admittedly were less specific in nature and attracted responses which tended to be fragmentary, irrelevant, and therefore less useful. Thus future resurveys of municipal needs and preferences should place primary emphasis on the first half of this questionnaire and perhaps even consider adding more specific questions if deemed desirable.

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**Public Attitudes and
Preferences Survey**

APPENDIX F

PUBLIC ATTITUDES AND PREFERENCES SURVEY

Introduction

One method of obtaining public input into Connecticut's 1978 revision of its SCORP was to send a questionnaire on outdoor recreation issues to a wide range of groups and organizations. Thus a list of 141 organizations was developed (see Appendix H) which represented the full spectrum of Connecticut's society, including business, labor, minority and handicapped groups as well as conservation and recreation interests. The attached questionnaire (see at end of Appendix) was then sent to each and was followed up with two series of telephone calls to encourage a satisfactory rate of response. Final returns totaled 31, or approximately 22% of the survey sample. Although the relatively low rate of response did not always allow solid generalizations to be made concerning the opinion of certain categories of interest groups, it was nevertheless felt that useful indicators of public concerns and priorities were obtained. Inferences from this survey should be made with recognizing that the greatest response was received from conservation and recreation user organizations.

Survey Findings

As detailed in the pages following, public opinions as expressed by frequency of responses were offered for the following questions:

Question 1. "In using its limited dollars available for outdoor recreation and open space preservation, government must develop priorities which will direct its spending to areas and programs of critical need or major opportunity. In your organization's opinion, what should be the top five action priorities by each of the following sections of government?"

The replies ranked as follows:

- a. FEDERAL
 - 1. Open space preservation
 - 2. Shore/beach access expansion
 - 3. Matching grants-in-aid to help local and state government
 - 4. National Park and Recreation Areas) tie
 - 4. Trails and hiking)
 - 6. Wildlife Preservation

- b. STATE
 - 1. Shore/beach access
 - 2. Water access grouped (rivers, general water access, swimming)) tie
 - 2. General acquisition)
 - 4. Farmland
 - 5. Trails and hiking
 - 6. Watershed land, acquifiers
 - 7. Development of existing facilities
 - 8. Wetlands
 - 9. Other significant issues raised included Camping, Maintenance, Hunting and Fishing access

- c. MUNICIPAL
 - 1. Acquisition of parks and open space, especially access to rivers and lakes, swimming facilities
 - 2. Suitable land use planning and control
 - 3. "Local"/Neighborhood parks)
 - 3. Development of parks) tie
 - 3. Farmland)

Question 2. "Do you feel that Connecticut's State Government is spending an adequate amount of money on outdoor recreation opportunity and on open space preservation?"

The overwhelming response was "NO." This reaction was seen particularly with environmental, sportsmen, and associated organizations.

Question 2a. "If your answer (to Question 2) is NO, what specific improvements would you like to recommend?"

The two most common recommendations, which received more or less equal backing were:

- 1. A strong or not particularly well articulated desire for improved State facilities, especially concerning beaches and to a lesser extent swimming in general.

2. An emphasis on increased land acquisition, especially by environmental, recreation; and sportsmen groups.

Other issues receiving a significant response included:

1. Providing sufficient State moneys to match available Federal grant-in-aid moneys.
2. Increasing the amount of Federal grant-in-aid moneys.
3. Boat ramps and associated parking areas.

Question 2b. "If your answer (to Question 2) is "NO" how do you feel such improvements should be financed?"

Respondent recommendations by frequency of occurrence included:

1. Major support for increased State spending (taxes, bonding, freeing-up previously-authorized bonding).
2. Also significant support for increased user fees, particularly dedicated fees where fee increases were dedicated to capital spending (acquisition and development)
3. The real estate transfer tax
4. Continued Federal-State cost sharing, perhaps with increased Federal share.

Question 3. "How adequate (quantity or quality-wise), are our existing State outdoor recreation facilities?"

Survey responses were somewhat divided as follows:

- a. A strong majority feels that State facilities are at least partially inadequate, with there being a strong "Inadequate" vote. Major complaints especially from environmental groups, involved the beach or shore access issue. Also significant concern expressed on camping, poor facility maintenance, and boating ramps.
- b. On the other hand, some groups feel that State facilities are partially to wholly adequate (see especially Business responses).

Question 4. "Generally speaking, how adequate in your opinion are our municipal outdoor recreational facilities by category of community (please suggest any desirable improvements)?"

By category of community, survey responses were as follows:

- a. Urban Community - A strong majority (over 70% of respondents) feel that they are inadequate.
- b. Suburban Community - The basic reaction is that suburban recreation facilities are more-or-less adequate (60% of responses). The remainder is fairly evenly split between "Good" and "Inadequate."
- c. Small Town Community - Again the basic feeling is that such facilities are more or less adequate (60% of responses). Remaining comments are split, but lean slightly more to "Inadequate" than to "Good."

Question 5. "Within the constraints posed by governmental financial limitations, what positive suggestions would you recommend for:
a) Disadvantaged inner city citizens and b) Handicapped and/or elderly citizens?"

Regarding inner city residents, the most popular recommendations were:

- a. Improving transportation access to recreational facilities.
- b. Providing more neighborhood/nearby facilities, preferably with local involvement in their operation.

For the elderly and handicapped, key recommendations were:

- a. Improving transportation access to recreational facilities.
- b. Removal of any architectural barriers plus local mini parks for the elderly.

Question 6. "Recognizing that government has limited financial resources, what types of outdoor recreation do you feel should not be the responsibility of government to provide?"

Respondents apparently interpreted "government" as meaning State Government, as seen in the opinions listed below by frequency of occurrence:

- a. Spectator or team sports.
- b. Expensive sports for the minority or which the private sector can provide, as golf, skiing, motor boating.
- c. Subsidized camping, which the private sector can provide as well as tennis.
- d. In addition, there was some minor "anti" sentiment as against snowmobiling, hunting.

Question 7. What types of outdoor recreation appear to be increasing at a faster than average rate in popular demand?

- a. The greatest increase was in Hiking followed by Camping.
- b. The second greatest increase was seen in Canoeing and biking.
- c. Substantial increase predicted in Tennis, Swimming, followed by Riding and Boating.

However these conclusions differed considerably by type of organization as seen below:

1. Business - Tennis
2. Labor - Swimming
3. State and Regional Environmental Groups - Hiking, canoeing, camping.
4. Land Trusts - Apparent interest in hiking and boating.

Question 8. "What types of outdoor recreation appears to be increasing at a less than average rate or to be decreasing in popular demand in Connecticut?"

Survey responses were relatively few and scattered and exhibited little if any value. However there was some minority sentiment that spectator sports, hunting, and picnicking were on the decline.

Question 9. "In your opinion, how far will most Connecticut citizens travel for a day outing at a State or regional park (one half hour, one hour, greater?"

Approximately 80% of survey respondents felt that a one hour travel time limit was a desirable goal: The remainder basically felt that greater than one hour was acceptable, especially for fishing and hunting with their resource-based character.

Question 10. "Do you feel that the energy crisis and the increasing cost of gasoline will alter traditional travel patterns? If so, how and to what degree?"

The overwhelming response was "NO," although over half have various qualifiers such as:

- a. It will restrict long distance travel and thereby help put more pressure on state and local facilities.
- b. It will be long range rather than short range in effect.
- c. It may have a significant effect if the cost of gasoline increases substantially.

On the other hand, only three respondents had a clear-cut "NO," two of whom were sportsmen, demonstrating again the sportsmen's willingness to travel to reach a desired recreational resource opportunity.

Question 11. "What types of land (and water) should receive the highest priority for state acquisition?"

The three highest ranking responses respectively were: a) shore, b) lakes, and c) rivers (would tie for #2 ranking if "Wild and Scenic River" support added). Substantial support was also given to acquisition of State forest/large tracts of land, wetland/wildlife refuge areas, and farmlands. Lesser watersheds/aquifers.

Question 12. "Do you feel the State should in its recreational investment emphasize: a) more natural land and water-based parks which may not be in close proximity to centers of population or b) more man-influenced non-resource-based parks in close proximity to centers of population?"

There was a strong preference (over two thirds of the responses) for a natural setting. Of the remaining eight comments, six favored nearer access and two favored a balanced approach.

Question 13. "Do you feel the State government should spend more of its outdoor recreation dollars on: a) better maintenance of existing areas, b) developing new areas, or c) both."

No clear cut response emerged in the responses although the highest vote (46%) went to a balanced approach. The remaining responses were split roughly 60-40 between the "new area" and the "Existing area" points of view. Thus the balance point is probably in favor of a comprehensive approach, with a slight leaning toward "New Areas."

Question 14. "Do you feel the State government should spend more of its outdoor recreation dollars on" a) More facilities, b) More lands, or c) Both?

Analysis of the responses indicated a strong preference (57%) for "More lands," although there is also substantial interest (32%) in a balanced approach. Only 11% favor a "More Facilities" only strategy.

Conclusions

In general, this survey proved to be quite successful in eliciting a good quality of response on most questions. This is particularly so in view of the fact that some questions required considerable thought as opposed to a simple yes or no response. Therefore the basic content of the questionnaire seems to have been proven satisfactory in providing consistently useful insights and should not need to be altered substantially at the time of the next SCORP update.

The one survey shortcoming involved the relatively low rate of response, despite the two follow up telephone calls. However, one must realize that the bulk of the organizations contacted previously had no direct interest in the SCORP process and probably were reluctant to take the time to reply to a detailed questionnaire of this type (a reluctance apparently also shared by many organizations involved in the conservation-outdoor recreation issue). This low response rate in part indicates the need for more public information and education programming.

CONNECTICUT STATE COMPREHENSIVE OUTDOOR RECREATION PLANPUBLIC ATTITUDES AND PREFERENCES SURVEY QUESTIONNAIRE

1. In using its limited dollars available for outdoor recreation and open space preservation, government must develop priorities which will direct its spending to areas and programs of critical need or major opportunity. In your organization's opinion, what should be the top five action priorities by each of the following sections of government?

a. FEDERAL

1. _____
2. _____
3. _____
4. _____
5. _____

b. STATE

1. _____
2. _____
3. _____
4. _____
5. _____

c. MUNICIPAL

1. _____
2. _____
3. _____
4. _____
5. _____

2. Do you feel that Connecticut's State Government is spending an adequate amount of money on outdoor recreation opportunity and on open space preservation?

Yes _____ No _____

- a. If your answer is NO, what specific improvements would you like to recommend? _____

- b. If your answer is NO, how do you feel such improvements should be financed? _____

3. How adequate (quantity or quality-wise), are our existing State outdoor recreational facilities? (If suggest desirable improvements) _____

4. Generally speaking, how adequate in your opinion are our municipal outdoor recreational facilities by category of community (please suggest any desirable improvements)?
- a. Urban Community _____

- b. Suburban Community _____

- c. Small Town Community _____

5. Within the constraints posed by governmental financial limitations, what positive suggestions would you recommend to improve the recreational opportunity provided?
- a. Disadvantaged inner-city citizens _____

- b. Handicapped and/or elderly citizens _____

6. Recognizing that government has limited financial resources, what types of outdoor recreation do you feel should not be the responsibility of government to provide?
- _____

7. What types of outdoor recreation appear to be increasing at a faster than average rate in popular demand in Connecticut?
- _____

8. What types of outdoor recreation appear to be increasing at a less than average rate or to be decreasing in popular demand in Connecticut?
- _____
- _____
- _____
- _____
9. In your opinion, how far will most Connecticut citizens presently travel for a day outing at a State or regional park?
- a. 1/2 hour _____
- b. 1 hour _____
- c. If greater, please specify _____
10. Do you feel that the energy crisis and the increasing cost of gasoline will alter traditional recreational travel patterns? If so, how and to what degree? _____
- _____
- _____
11. What types of land (and water) should receive the highest priority for State acquisition?
- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
12. Do you feel the State should in its recreational investment emphasize:
- a. More natural land and water-based parks which may not be in close proximity to centers of population?
- _____
- _____
- _____
- b. More man-influenced non-resource-based parks in close proximity to centers of population. _____
- _____
- _____
13. Do you feel the State government should spend more of its outdoor recreation dollars on: (a,b,or c)
- a. Better maintenance of existing areas _____
- _____
- _____
- _____

b. Developing new areas _____

c. Both _____

14. Do you feel the State government should spend more of its outdoor recreation dollars on:

a. More facilities _____

b. More lands _____

c. Both _____

15. Do you have any other comments which you feel could be of assistance to the State outdoor recreation planning process?

appendix

g

**Population Segments of
Special Concern**

Table G-1

AVERAGE ANNUAL PER CAPITA EXPENDITURES
FOR PARKS AND RECREATION BY
TWELVE CONNECTICUT CITIES, 1971-1977^a

<u>City</u>	<u>Average Annual Expenditure (Dollars)</u>	<u>Average Percentage of Annual General Expenditure</u>
Norwich	4.4	1.2
Danbury	5.8	1.2
New London	6.7	1.6
New Britain	7.3	2.0
Middletown	7.3	1.6
Meriden	7.4	1.7
Norwalk	8.5	1.7
Waterbury	11.0	2.2
New Haven	11.6	2.0
Bridgeport	12.4	2.4
Stamford	12.5	1.8
Hartford	16.9	2.2

^aCompiled from Annual Municipal Audit Reports, State of Connecticut Tax Department, Municipal Division.

Table G-2.

CURRENT USE OF CETA MANPOWER BY PARKS AND RECREATION DEPARTMENTS
IN TWELVE CONNECTICUT CITIES^a

<u>City</u>	<u>Total Number Personnel^b</u>	<u>Number CETA Personnel</u>	<u>Percent CETA Personnel of Total</u>
Bridgeport	195	85	44
Danbury	52	3	6
Hartford	418	86	21
Meriden	61	31	51
Middletown	c	c	--
New Britain	77	20	26
New London	c	c	--
New Haven	292	94	32
Norwalk	102	37	36
Norwich	57	6	10
Stamford ^d	101	--	--
Waterbury	131	31	24

^aFor most recent operating year, 1977 or 1977-78.

^bIncludes permanent, seasonal, full and part-time, and CETA personnel.

^cData not available.

^dStamford is utilizing CETA personnel for first time in 1978. Number is not yet known.

Table G-3

THE NUMBER OF PASSENGER VEHICLES REGISTERED

PER CAPITA IN 1976

	<u>Total Number^a Vehicles</u>	<u>Number Vehicles Per Capita</u>
State	1,582,554	0.49
Stamford	59,711	0.55
Norwalk	43,843	0.54
Meriden	28,262	0.50
Danbury	28,566	0.48
Middletown	18,546	0.45
New Britain	35,386	0.42
Bridgeport	62,248	0.40
Norwich	18,210	0.39
Waterbury	41,404	0.38
New London	11,921	0.37
New Haven	46,574	0.35
Hartford	46,202	0.31

^aConnecticut Department of Motor Vehicles

Table G-4

AVERAGE TOTAL NUMBER OF TIMES PARTICIPATING PER CAPITA
IN SUMMER RECREATION ACTIVITIES BY DEMOGRAPHICS^a

TOTAL POPULATION	31.9
<u>Family Income</u>	
Under \$5,000	15.0
\$5,000 to \$10,000	28.0
Over \$10,000	40.4
<u>Age</u>	
15 to 18	82.0
19 to 64	29.7
65 and older	7.1
<u>Sex</u>	
Male	36.6
Female	27.6
<u>Race</u>	
Black/Spanish Speaking	27.9
Other	32.2
<u>Available Automobile</u>	
None	15.9
1 or more	34.5

^aTri-State Regional Planning Commission. Unpublished data from Summer Recreation Use Patterns Survey. Based on 321 Connecticut respondents.

Table G-5

PERCENT PERSONS 65 AND OLDER IN 1970 FOR
STATE OF CONNECTICUT AND THE MAJOR CONNECTICUT CITIES

	<u>Number Elderly</u>	<u>Percent Elderly of Total Population</u>
Waterbury	13,542	12.5
New Haven	16,940	12.3
Bridgeport	18,584	11.9
New London	3,706	11.7
Norwich	4,866	11.7
New Britain	9,327	11.2
Hartford	17,121	10.8
Meriden	6,033	10.8
Middletown	3,662	9.9
Danbury	4,823	9.5
Stamford	10,119	9.3
Norwalk	<u>6,862</u>	8.7
City Total	<u>115,585</u>	
State	288,908	9.5

Source: 1970 U.S. Census

Table G-6

COMPARISON OF STATE OF CONNECTICUT AND TWELVE
CONNECTICUT CITIES BY PER CAPITA INCOME IN 1969

	<u>Per Capita Income</u> <u>(Dollars)</u>
Stamford	4787
Norwalk	4070
State	3900
Danbury	3514
New Britain	3509
New London	3428
Meriden	3379
Middletown	3337
Waterbury	3296
Bridgeport	3233
New Haven	3181
Hartford	3113
Norwich	3108

Source: 1970 U.S. Census.

Table G-7

AVERAGE MONTHLY WELFARE ROLES FOR
STATE OF CONNECTICUT AND TWELVE
CONNECTICUT CITIES IN 1977

	<u>Number Persons</u>	<u>Percent of Total State Welfare Role</u>
State	142,540	100
Bridgeport	21,139	15
Danbury	2,398	2
Hartford	30,269	21
Meriden	2,751	2
Middletown	1,613	1
New Britain	4,310	3
New London	2,154	1
New Haven	20,664	14
Norwalk	3,836	3
Norwich	2,349	1
Stamford	5,203	4
Waterbury	<u>8,013</u>	<u>6</u>
CITIES TOTAL	104,699	73

Source: State of Connecticut Department of Social Services

Table G-8

AVERAGE PERSONAL 1969 INCOME BY AGE GROUP
FOR STATE OF CONNECTICUT

<u>Age Group</u>	<u>Average 1969 Personal Income^a</u> <u>(Dollars)</u>
14-19	1372
20-24	3844
25-29	6702
30-34	7988
35-39	8844
40-44	9194
45-49	9241
50-54	8994
55-59	8663
60-64	7671
65 and older	4158

^aBased on persons with a personal income.

Source: 1970 U.S. Census

Table G-9

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE POPULATION
STANDARDS FOR ESTIMATING NUMBERS OF HANDICAPPED

<u>Handicap</u>	<u>Percent of General Population</u>
Orthopedic	1.0
Health handicapped ^a	1.5
Speech impaired	1.5
Deaf, hearing impaired	1.5
Behaviorly handicapped	2.5
Epilepsy	0.2
Mentally retarded	2.0
Mentally gifted	<u>2.0</u>
TOTAL	12.2

^a Includes lung and heart disease, blindness, and other health related impairments.

Appendix

h

Public Participation Element

APPENDIX H

PUBLIC PARTICIPATION ELEMENT

A major objective of the 1978 Connecticut Statewide Comprehensive Outdoor Recreation Plan (SCORP) updating process is to incorporate adequate and meaningful public input into the assessment of the various outdoor recreation needs within the state and therefore input into the delineation of future goals, policies and priorities. To achieve this objective, a three part public participation program was initiated early in the SCORP program.

The first phase of this program was a mail survey of 141 private organizations representing a broad range of interests and segments of the general Connecticut population. Included in the survey were conservation and environmental organizations; recreation user organizations; professional societies; business and labor groups; organizations dealing with the elderly, the handicapped and minorities; civic groups; and a sampling of community organizations. Private organizations included in the survey (Table H-1) were selected from the 1977 State of Connecticut Register and Manual. Community organizations were added to insure a full spectrum of representation in the survey.

The mail questionnaire investigated the attitudes and preferences of organizations in the survey sample with regard to the outdoor recreation and open space priorities of state and local government (See Appendix F for mail questionnaire and detailed survey results). The mail questionnaire, and a summary description of SCORP were distributed in early summer of 1977. Of the 141 organizations afforded the opportunity for input, 22

Table H-1

PRIVATE ORGANIZATIONS

CONTACTED IN MAIL SURVEY

Conservation and Environmental Organizations

Aspetuck Land Trust
Berkshire-Litchfield Environmental Council
Bethany Conservation Trust
Brookfield Open Space Legacy
Connecticut Arboretum Association
Connecticut Association of Conservation Commissions
Connecticut Association for Environmental Education
Connecticut Association of Soil and Water Conservation Districts
Connecticut Audubon Society
Connecticut Conservation Association
Connecticut Environmental Health Association
Connecticut Forest and Park Association
Connecticut River Ecology Action
Connecticut River Watershed Council
Connecticut Wildlife Federation
Cheshire Land Trust
Clinton Land Conservation Trust
Environmental Action Fund
Essex Conservation Trust
Farmington Land Trust
Farmington River Watershed Association
The Federation of Garden Clubs of Connecticut
Great Meadows Conservation Trust
Land Trust Division of Greenwich Audubon Society
Guilford Land Conservation Trust
Haddam Land Trust
Housatonic Audubon Society
Housatonic Valley Association
Joshua's Tract Conservation and Historic Trust
Madison Land Conservation Trust
Manchester Land Conservation Trust
Mashantucket Land Trust
Middlebury Land Conservation Association
National Audubon Society
Nature Conservancy, Connecticut Chapter
Natural Resources Council of Connecticut
New Canaan Land Conservation Trust
Newton Forest Association
North Haven Land Trust
Old Lyme Land Conservation Trust
Redding Land Trust
Land Conservancy of Ridgefield
Steep Rock Association

Sierra Club, Connecticut Group
 Talcott Mountain Forest Protective Association
 Torrington Land Conservation Trust
 Weantinogue Heritage
 Wildlife Management Institute
 Wilton Land Conservation Trust
 Woodbridge Conservation

Recreation Organizations

Appalachian Mountain Club
 Connecticut Horse Council
 Connecticut and New England Family Campers Association
 Connecticut and New England Trail Riders Association
 Connecticut Recreation and Park Association
 Connecticut Snowmobiler's Association
 Connecticut Sportsman's Alliance
 Fairfield County League of Sportsmen
 Housatonic Fly Fisherman's Association
 National Recreation and Parks Association
 New London County League of Sportsmen
 Young Men's Christian Association
 Young Women's Christian Association

Professional Organizations

American Institute of Planners, Connecticut Chapter
 American Institute of Landscape Architects, Connecticut Chapter
 Connecticut Society of Architects
 Connecticut Bar Association, Conservation and Environmental Quality
 Section
 Society of American Foresters, Yankee Chapter
 Soil Conservation Society of America, Southern New England Chapter

Business and Labor Organizations

American Federation of State, County and Municipal Employees, AFL-CIO
 Bridgeport Area Chamber of Commerce
 Connecticut Bankers Association
 Connecticut Business and Industry Association
 Connecticut Construction Industries Association
 Connecticut Development Council
 Connecticut Farm Bureau Association
 Connecticut Federation of Business and Professional Women's Clubs
 Connecticut Nurseryman's Association
 Connecticut Retail Merchants Association
 Connecticut State Employees Association

Connecticut State Federation of Teachers
 Connecticut State Labor Council, AFL-CIO
 Connecticut State United Auto Workers Community Action Program Council
 Greater Hartford Chamber of Commerce
 Greater New Haven Chamber of Commerce
 Greater Waterbury Chamber of Commerce
 Western Connecticut Industrial Council

Organizations Dealing with the Elderly, the Handicapped, and Minorities

Connecticut Department on Aging
 Dixwell Senior Center - New Haven
 Connecticut Association for Retarded Citizens
 Connecticut Commission on the Deaf and Hearing Impaired
 Disabled American Veterans
 Easter Seal Society for Crippled Children and Adults of Connecticut
 Mental Health Association of Connecticut
 National Federation of the Blind of Connecticut
 Black Coalition of Greater New Haven, Inc.
 National Association for the Advancement of Colored People
 Poor People's Federation
 Spanish American Development Agency
 Spanish-American Coalition (La Casa De Puerto Rico)

Statewide Civic Organizations

Connecticut Association for Community Action
 Connecticut Association for Human Services
 Connecticut Citizens Action Group
 Connecticut Civil Liberties Union
 Connecticut Conference of Municipalities
 Connecticut Consumer Association
 Connecticut Council of the Family
 Connecticut Education Association
 Connecticut Federation of Planning and Zoning Agencies
 Connecticut Lung Association
 Connecticut Public Expenditures Council
 Connecticut Federation of Women's Clubs
 Connecticut State Grange
 Connecticut State Taxpayers Association
 Council of Small Towns
 Humane Society of the United States, Connecticut Chapter
 League of Women Voters

Community Organizations

Action for Bridgeport Community Development
 Ansonia Community Action, Inc.

Bristol Community Organization, Inc.
Community Action Committee of Danbury, Inc.
Community Action for Greater Middletown, Inc.
Community Renewal Team of Greater Hartford, Inc.
Enfield Neighborhood Center
Family Services of New London
Hall Neighborhood House, Inc. (Bridgeport)
HARAMBEE (Bridgeport)
Human Resources Agency of New Britain, Inc.
Information and Referral Drop-In Center (Milford)
Interfaith Social Action Corp (Danbury)
La Casa Hispana (Stamford)
Meriden Community Action Agency
Metropolitan Woman's Club of Hartford
Mount Pleasant Neighborhood Corporation (New Britain)
New Horizons (New Britain)
Project COOL (Bridgeport)
Revitalization Corps (Hartford)
Thames Valley Council for Community Action
The Wheeler Clinic (Plainville)
Urban League of Greater Hartford
Urban League of Greater New Haven

percent responded. Results of this survey were incorporated into the assessment of state, regional, and local outdoor recreation needs (Chapter IV) as well as into the analysis of the needs of cities, the elderly, the handicapped, and the economically disadvantaged (Chapter VII).

The second phase of the SCORP public participation program was a series of 12 public informational meetings held in cooperation with the State's Regional Planning Agencies (RPAs). The purpose of these meetings was to provide the general public, local officials, and private organizations adequate opportunity for meaningful input into the SCORP update process. The public meetings were well distributed geographically in the state and held on weekday evenings to solicit maximum public turnout (See Table H-2, SCORP Public Informational Meeting Schedule). Each meeting was hosted by the regional planning agency. Local publicity was done by the RPAs while the Department of Environmental Protection notified private organizations of statewide representation, other state agencies, the Connecticut Soil and Water Conservation Districts, all State Legislators, and placed notice in the Connecticut Law Journal.¹ Statewide private organizations notified of the public meeting schedule and encouraged to participate are listed in Table H-3.

The schedule of public informational meetings was publicized locally by each of the hosting regional planning agencies. Notices of each of the meetings were carried by major regional newspapers as indicated below in

¹Commission on Official Legal Publications. Connecticut Law Journal. Vol. XXXIX No. 26, December 27, 1977 and Vol. XXXIX No. 30, January 24, 1978.

Table H-2

STATEWIDE COMPREHENSIVE OUTDOOR RECREATION PLAN

PUBLIC INFORMATIONAL MEETING SCHEDULE

<u>Date</u>	<u>Place</u>	<u>Time</u>	<u>Hosting Regional Planning Agency (s)</u>
Jan. 4	Silas Bronson Library Waterbury	3:00 p.m.	Central Naugatuck
Jan. 6	Danbury City Hall Danbury	7:00 p.m.	Housatonic Valley
Jan. 10	Univ. of Connecticut Extension Center Haddam	8:00 p.m.	Connecticut River Estuary/Midstate
Jan. 11	Connecticut Agri. Experiment Station New Haven	7:30 p.m.	South Central
Jan. 12	Court of Common Pleas Norwich City Hall	7:30 p.m.	Southeastern Connecticut
Jan. 18	Derby Train Station Derby	2:00 p.m.	Valley
Jan. 19	Goshen Town Hall Goshen	8:00 p.m.	Northwestern/ Litchfield Hills
Jan. 23	Windham RPA Willimantic	7:30 p.m.	Windham
Jan. 31	Plainville Municipal Center	7:30 p.m.	Central
Feb. 15	137 Rowayton Ave. Rowayton	8:00 p.m.	Southwestern
Feb. 16	CRCOG Hartford	7:30 p.m.	Capitol Region Council of Governments (CRCOG)
Feb. 22	Bridgeport	7:30 p.m.	Greater Bridgeport

Table H-3

PRIVATE ORGANIZATIONS OF STATEWIDE REPRESENTATION
INVITED TO ATTEND SCORP PUBLIC INFORMATION MEETINGS

1. National Recreation and Parks Association
2. Connecticut Recreation and Park Association
3. Connecticut Family Campers Association
4. Connecticut Wildlife Federation
5. Connecticut Audubon Federation
6. Natural Resources Council of Connecticut
7. Connecticut Sportsman's Alliance
8. Connecticut Sportsman's Association
9. The Nature Conservancy-Conn. Chapter
10. Sierra Club-Connecticut Group
11. Appalachian Mountain Club
12. Connecticut Conservation Association
13. Connecticut Forest and Park Association
14. Connecticut Association of Conservation Commissions, Inc.
15. Federated Garden Clubs of Connecticut
16. Connecticut Farm Bureau Association
17. Connecticut River Watershed Council, Inc.
18. Farmington River Watershed Association
19. League of Women Voters
20. National Association for the Advancement of Colored People (NAACP)
21. Urban League of Greater Hartford
22. Urban League of Greater New Haven
23. Connecticut Conference of Municipalities
24. Eastern Seal Society of Connecticut
25. Connecticut Association for Retarded Citizens
26. Connecticut Citizens Action Group
27. Revitalization Corps
28. Poor People's Federation
29. Connecticut Council of Senior Citizens
30. National Federation of the Blind of Connecticut

Table H-4. In addition, notices were mailed to RPA representatives; city managers and first selectman; chairmen of municipal planning and zoning commissions, conservation commissions, and parks and recreation commissions; town planners; and active local and regional private organizations. Such groups as conservation, environmental, recreation, and minority groups were notified. Furthermore, notices were included in many of the RPA newsletters. Such newsletters were widely distributed to interested citizens on each RPA's mailing list. For example, in the Southeastern Connecticut RPA alone, 1500 persons receive the bimonthly SCRPA Newsletter. Other RPAs utilized similarly extensive mailing lists.

At the regional public meetings, the same basic format was utilized. Staff of the Regional Planning Agency opened each meeting with statements of the meeting's purpose, the RPA's past open space and outdoor recreation planning efforts, and an introduction of Connecticut Department of Environmental Protection (DEP) staff. The DEP presentation consisted of a brief description of SCORP, what it is and what it means to the State and its municipalities. Also presented was a description of the Land and Water Conservation Fund Act and DEP's Municipal Open Space Grant Program. Both the RPA and DEP presentations were purposely kept brief to allow maximum time for public comments and questions. The meetings were moderated by either a RPA or DEP staff person in such a manner so as not to be too formal but yet maintain adequate control to keep comments relevant to the objective of the meeting. Tape recordings were made of each meeting for the purpose of maintaining a permanent record for future reference of public comments. As well as receiving oral comments, many towns and several private organizations presented written comments.

Table H-4

CONNECTICUT NEWS MEDIA IN WHICH
NOTICES OF SCORP PUBLIC INFORMATION MEETING
SCHEDULE WERE POSTED

Bridgeport Sunday Post

Bridgeport Telegram

Bristol Press

Danbury News Times

Evening Sentinel (Ansonia)

Hartford Courant

New Haven Register

New London Day

Norwich Bulletin

Old Lyme Gazette

Redding Pilot

Waterbury American

WADS Radio (Ansonia)

Attendance at the public information meetings varied considerably. A total of 215 persons attended. Turnout for individual regional meetings ranged from a low of nine to a maximum of 30. Of those people who attended, members of the general public as well as municipal officials were well represented.

Comments received at the public meetings were generally positive and constructive in nature. Upon review, such comments were utilized to complement the activity systems' needs assessment and to identify areas of special concern. In providing new and different perspectives on Connecticut's recreational needs, the public information meetings proved invaluable to the planning process.

The third and final phase of the public participation program consisted of establishing a SCORP Advisory Board. The 12 member Board is made up of representatives of private and public organizations representing a broad range of interests. The SCORP Advisory Board's make-up and the groups represented are shown in Table H-5. The three regional planning agencies represented were elected by ballot by the executive directors of the State's 15 regional planning agencies. The three representatives from the Advisory Council to the Division of Conservation and Preservation of DEP were also elected from amongst themselves. Other organizations asked to participate on the Board appointed their own representatives.

The membership of the SCORP Advisory Board was established in late February and early March of 1978. The first meeting of the Board was March 28, 1978 at which time the members selected John Hibbard, Secretary-Forester of the Connecticut Forest and Park Association, as chairman. The Board's role has been an advisory and editorial one to DEP's planning

staff. The Board has reviewed and commented on the draft SCORP document including the Plan's recommendations and action plan. The comments of the Board have been incorporated into the draft plan. Overall the Advisory Board has had a significant role and considerable input in the drafting of the 1978 SCORP. The SCORP Advisory Board will continue to function as part of Connecticut's continuing outdoor recreation planning process.

Table H-5

MAKE-UP OF THE CONNECTICUT SCORP

ADVISORY BOARD

<u>Organization</u>	<u>Name</u>
1. Southeastern Connecticut Regional Planning Agency	Richard Erickson, Executive Director
2. Capitol Region Council of Governments	Nancy London (representing Dana Hanson, Executive Director)
3. Northwestern Connecticut Regional Planning Agency	Thomas McGowan, Planning Director
*4. Connecticut Forest and Park Assoc.	John E. Hibbard, Secretary-Forester
*5. Connecticut Wildlife Federation	Gene F. Marra, Executive Director
*6. Connecticut Waterfowlers Association	Milan J. Bull, Secretary
7. The Nature Conservancy, Connecticut Chapter	Evan Griswold, Director
8. Connecticut Association of Recreation and Park Directors	Robert Dlugolenski, President
9. Connecticut Conference of Municipalities	Hugh Manke, Executive Director
10. Connecticut Council of Small Towns	David Russell, Executive Director
11. Urban League	James Scott and Cynthia Coleman
12. Budget Division, State of Connecticut Office of Policy and Management	Atoinetta Bascetta Acting Assistant Director

*
Representatives from the Advisory Council to the Division of Conservation and Preservation of the Department of Environmental Protection.

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Regional Needs

APPENDIX I
REGIONAL NEEDS

To address the outdoor recreation needs of the different planning regions within Connecticut, the cooperation and expertise of the State's Regional Planning Agencies (RPAs) were utilized.¹ Connecticut is subdivided into 15 multi-town regions (See Figure I-1). Outdoor recreation needs identified by existing regional open space and recreation planning programs were reassessed in light of the comments and input received from municipal officials and the general public at public information meetings hosted by the RPAs.²

Needs delineated by the Regional Planning Agencies have been incorporated into the statewide and regional needs assessment presented in Chapter IV. Given the limitations of the data base upon which Chapter IV's analysis relies, regional perspectives proved useful as a complimentary means to document state as well as regional outdoor recreation needs.

Listings of priority regional needs as perceived by each of the Regional Planning Agencies follow.

Capitol Region

The Capitol Region Council of Governments has delineated the following recommendations relating to the open space and outdoor recreation needs of this region:

¹ Of the 15 RPAs, 13 provided assessments of their region's needs. Midstate and the South Central Connecticut RPAs did not.

² See Appendix H for listing of the 12 regional public information meetings to solicit public input and held cooperatively by the Department of Environmental Protection and the Regional Planning Agencies.

1. Transportation - A transit system should be developed to service recreational areas, particularly major shoreline beach areas.
The existing express bus service system could be utilized to transport individuals to state recreation areas, particularly on weekends in the summer months. Land and Water Conservation Act Funds should be allocated to promote greater access to recreational facilities.
2. Natural Area Protection and Scenic Preservation - Prioritize acquisition of environmentally sensitive areas and scarce natural resources, such as flood plains, wetlands, ridgelines, agricultural, forest and park lands. The state should give priority to acquisition of agricultural lands within the Region. In addition, significant slope areas in the eastern and western highlands of the Region and along Talcott Mountain, primarily where such areas are visible to large urban concentrations of population, should be given high priority.
3. Water - The Commission supports improved lake management. In addition, the Commission feels that the State should support increased flows in major tributaries to increase dilution and also increase recreational boating facilities.
4. Water Activities - The Commission supports the acquisition of property along the Connecticut River, in the Great Meadows area, and along the Hockanum, Scantic, and Farmington River, in or near, but no limited to, areas of urban concentration.
5. Trail Activities - The Commission recommends the development of a regional trail system. Use of abandoned railroad rights-of-way for

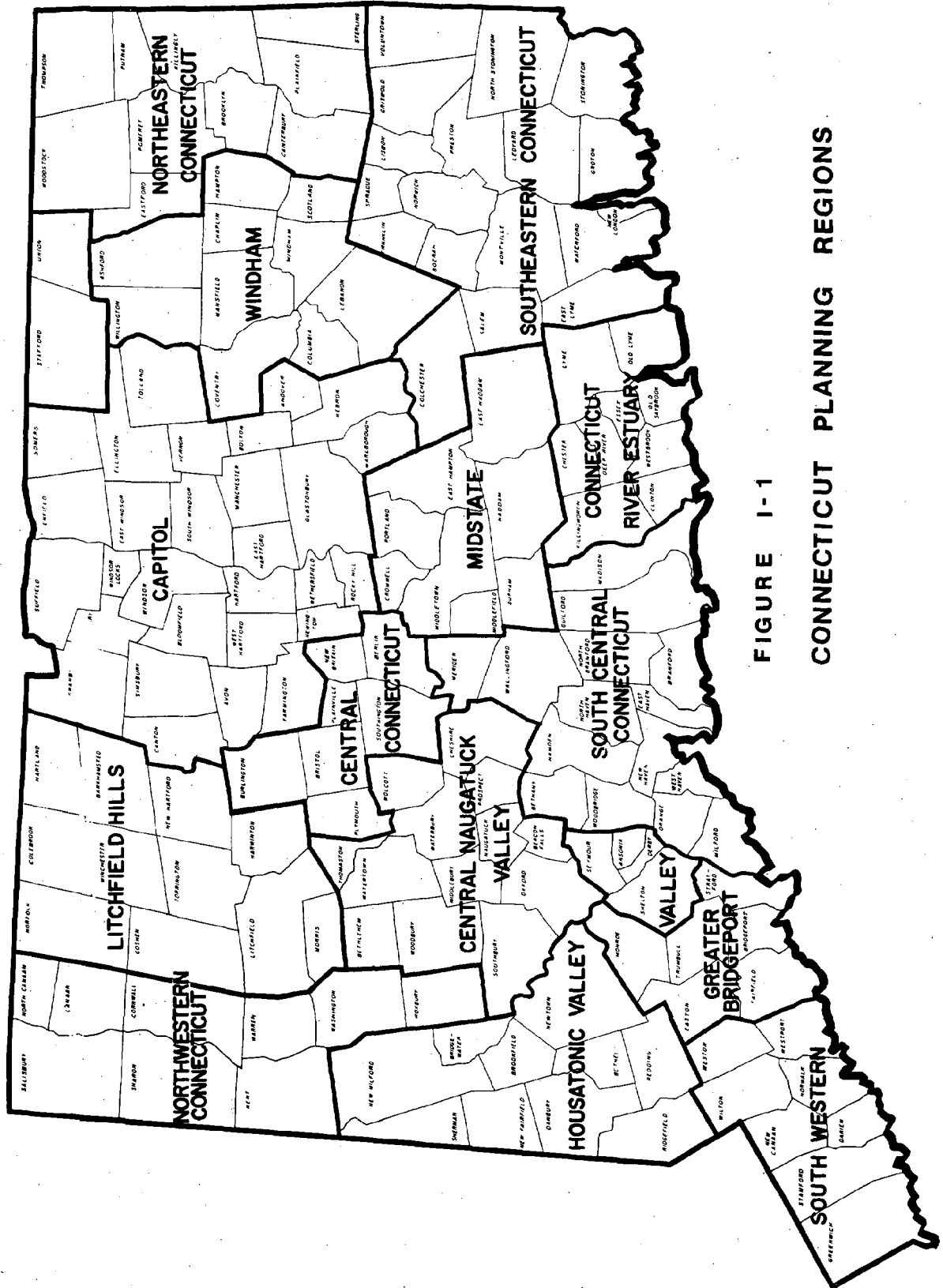


FIGURE 1-1

CONNECTICUT PLANNING REGIONS

recreation should be maximized, especially where rights-of-ways link existing open space parcels. The State should support efforts to solicit recreation opportunities on utility company lands. The State should begin to regulate and restrict the use of motorized recreation vehicles in order to limit noise, conserve energy, and promote safety.

6. Local Recreation Activities - The Commission recommends that the State research funding sources and seek innovative techniques to develop recreational opportunities in the urban area of the region.
7. Administration and Future Planning - The Commission recommends greater involvement and coordination on an annual basis with the Regional Planning Agencies. The Commission recommends that the State assume a greater portion of the local match required by municipalities when receiving Land and Water Conservation Act funding. The acquisition of open space parcels at the local land would be greatly accelerated if a larger portion of the local share were available from the State. It is recommended that the State share be allocated on an annual basis to insure immediate commitment. The State should consider combining historic preservation and open space planning in selected urban settings.

Central Connecticut Region

The policy of the Central Connecticut Regional Planning Agency with regard to recreation is "to provide recreation facilities as open space land and water areas that satisfy within the physiographic limitations of the area, the open space and recreation needs and desires of the population in terms of the amounts provided and the types provided, in such a manner that the environment is enhanced." Short-term outdoor recreation and

open space goals and needs of the Central Connecticut Region include:

1. Meeting the recreational needs of the aged.
2. Meeting the recreational needs of the handicapped.
3. Preservation of an additional 8,600 acres of regional open space.
4. Preservation of unique open spaces and prominent ridges.
5. Improvement of hiking trails system, including the Metacomet, Tunxis, and Mattatuck trails in the Region.
6. Develop recreation in short supply in Region, including boating, picnicking and fishing.
7. Acquisition of Cathole Mountain, Fern Hill, and Plymouth Hills.

Central Naugatuck Valley Region

The recreation and open space goal of the Central Naugatuck Valley Regional Planning Agency is that, "opportunity for a full range of passive and active recreation at locations accessible to residents and preservation of the environmental balance and exhaustible natural resources of the Region, are essential to the continued health and well-being of the residents." The outdoor recreation and open space needs and objectives of the Region are as follows:

1. Provide a wide variety of recreational opportunities.
 - a. Priority should be given to water oriented expenditures, including the acquisition and/or construction of fishing and boating access points, beaches and other facilities. The State should actively pursue the acquisition of access rights to the Region's water bodies such as the upper Naugatuck River and Lake Quassapaug and to the foreshore of Long Island Sound.

- b. Discharges to streams should be strictly limited to that which is fully compatible with the State proposed water quality rating of the stream.
 - c. Multiple use of state, federal and local facilities should be encouraged.
 - d. Camping facilities should be expanded and modernized with priority given to locations near multi-purpose, intensive recreation centers.
 - e. Existing recreation trails should be protected, improved and new ones developed.
2. Provide recreational opportunities close to the home of all residents.
- a. Priority should be given to the purchase and development of recreational sites within and close to the major population concentrations in the Region.
 - b. Recreation land should be located according to its purpose, with high frequency and children's facilities closest to home. For example, ball fields should be within walking distance, swimming pools and tennis courts no more than 20 minutes away by available transportation (i.e. within the municipality) and day outing facilities available within the Region.
 - c. The potential use of the rivers in the urban areas for recreation and aesthetic purposes should be fully explored.
 - d. Land cleared by demolition of unsound structures or urban renewal should be used to procure small playgrounds in the built-up areas.

- e. The siting and design of schools should be integrated with local and regional plans and their facilities available after school hours for community use.
 - f. Maximum use should be made of linear connections between open space areas, for example, rivers utility easements, highway rights-of-way, to maximize accessibility and visual impact.
3. Conserve the scenic, historic and natural features which give the area its character and are essential to the environmental balance of the Region.
- a. Ridge tops, escarpments, significant wetlands, existing recreational trails and other unique natural features should be preserved as open space.
 - b. Rivers and other water bodies should have high priority for recreation and preservation.
 - c. Open space reservations should be used to compliment and support the desired development pattern.
 - d. Imaginative and topographically suitable subdivision design should be encouraged to preserve the natural features and vegetation of the area, and provide additional common open space accessible to the community.
 - e. Utility company lands and facilities should contribute to the open space, aesthetic and other environmental objectives of the Region as well as their primary utility function.
 - f. Purchase of land by the municipalities for recreation and open space should be based on a priority schedule and municipal budget allocation made annually to support the acquisition program.

4. Acquisition of the 8 action areas. Improve and develop existing recreational facilities within the Region.
 - a. Increase the availability of funding for recreational facilities throughout the Region.
 - b. Increase citizen awareness as to the availability of recreational facilities throughout the Region.
 - c. Develop bicycle paths throughout suitable land areas within the Region, such as abandoned trolley lines and canals, etc.
 - d. Promote tourism as a by-product of improved recreational opportunities.

Connecticut River Estuary Region

Acquisition Priorities:

1. Tidal wetlands along the Connecticut River and Long Island Sound.
2. Acquire development rights on the 2,500 acres of upland ridges within the Connecticut River Gateway Conservation Area.
3. Acquire water access to Long Island Sound for development of beach facilities.
4. Acquire five hundred acres of locally controlled open space. This acreage for future "intensive" and "passive" recreational uses.

Development Priorities:

1. Expand and improve recreational facilities in the State Forest System.
2. Develop hiking, camping, riding, nature study and recreational uses.
3. Develop, improve and maintain public boat launching ramps with access to the Connecticut River and Long Island Sound.
4. Expand swimming facilities.

5. Expand the multiple use of the Valley Railroad corridor.

Greater Bridgeport Region

The Greater Bridgeport's Regional Planning Agency's last complete open space plan was done in 1969. Although much of the information in this plan is now outdated, the two top priorities identified--small parks and saltwater beaches--still rank high among regional needs.

The outdoor needs listed below were determined by taking into consideration public comments and priorities determined in the formulation of the Greater Bridgeport Regional Land Use Element and the Region's Environmental Quality Inventory. The rankings are listed in two categories: types of recreation needs and specific sites.

Types of Recreation Needs:

1. Small neighborhood parks in urban areas.
2. Development and rehabilitation of recreation facilities on existing parkland.
3. Saltwater swimming and boating facilities.
4. Preservation of public water supply watershed lands for light intensity recreational use.

Specific Areas:

1. Great Meadows, Long Beach, Pleasure Beach and Lewis Cut--
Great Meadows and portions of Long Beach should be preserved as wildlife conservation areas, while Pleasure Beach should be rehabilitated as a major saltwater recreation facility.
2. Ash Creek Salt Marsh should be preserved as a wildlife conservation area.

3. Indian Ledge Park and the Pequonnock River Ravine should be maintained in their respective present uses, as a recreation area and natural area. Both areas would be impacted by proposed construction of Route 25 through Trumbull.

Housatonic Valley Region

The Housatonic Valley Region is the fastest growing region in the State. Between 1960 and 1970 the area grew 59 percent. Population projections indicate a 35 percent increase for the 1970-1980 decade. Such rapid growth places demands on all community services, including open space and recreation facilities.

The top five general outdoor recreation priorities of the region as determined by a RPA survey are as follows:

1. Swimming - town based facilities.
2. Camp facilities - tent facilities.
3. Ball playing, including facilities to accommodate baseball, softball, soccer, and general purpose football.
4. Tennis facilities.
5. Cross country skiing.

Litchfield Hills Region

In its regional open space and outdoor recreation planning, the Litchfield Hills Regional Planning Agency has taken the streambelt corridor approach. Existing committed open space presently accounts for 21 percent (51,500 acres) of the Region. There is no present deficiency or near future need (2020) for additional open space lands for extensive recreation.

The open space and recreation needs of the Litchfield Hills, as delineated below, are generally for more intensive recreation and the protection of natural resources related to the Region's stream corridors.

These specific needs include:

1. Protection of marshlands, aquifer recharge areas, steep slopes, fields and forests related to the Region's stream corridors.
2. Swimming capacity needs to be expanded to meet future needs due to the Region's population growth and increased use from outside the Region (ex. Compensating Reservoir, Thomaston Dam).
3. Fifteen towns in the Region need to develop playground and neighborhood park facilities.
4. Lakes, such as Highland, Bantam, and Tyler, with public access for boating are currently congested. Public boat access should be provided to the Region's other lakes and ponds.
5. With three private and three public golf courses, there is a need for the development of additional facilities.

Northeast Region

Priority open space and outdoor recreation needs of the Northeast Region:

1. Acquisition of lands adjacent West Thompson Reservoir for extensive recreational uses, such as trail activities and hunting.
2. Public control of the confluence of the French and Quinebaug Rivers.
3. Protection of the Quinebaug River corridor as a linear park from the confluence of the French River to Jewett City mill pond.

4. Establishment of a Route 6 bikeway utilizing in part adjacent abandoned rail right-of-way.
5. Technical planning and design assistance from the State to the rural towns of the region.
6. Public access to the region's water bodies.
7. Trail facilities, particularly dirt bike and trail bike trails.

Northwest Region

The open space planning efforts of the Northwestern Connecticut Regional Planning Agency (NWCORPA) have been based on the recognition that the northwest corner of Connecticut is one of the most scenic sections of the State. Such planning is based on the concept of a "scenic ridge," a corridor of permanent open space along the Housatonic and Shepaug River.

In NWCORPA's Preservation and Conservation Study, the Region's natural and cultural factors are identified, mapped and analyzed on a town-by-town basis. The goal of this study was to identify those land areas that should be protected if the Region is to retain its present unique beauty and character.

Three major land classes are delineated: preservation lands, lands with development restraints, and conservation lands. The preservation or open space category includes irreplaceable natural resources. Natural resources of this type are: inland wetlands, fertile agricultural soils, primary groundwater areas, and lands already permanently designated through ownership as open space (state parks and forests, lands held by land trusts, and water company lands). Lands not included in the preser-

vation category with natural development restraints were identified. Such restraints include areas of steep slope and shallow depth to bedrock. Conservation areas include those areas with special scenic and cultural values. Such areas were then imposed upon developable areas to form a composite analysis which identified primary regional areas for preservation and conservation.

Southeastern Region

Open space and outdoor recreation priorities through 1982:

1. Primary emphasis should be placed on broadening the recreational facilities at existing state parks, preserves, and forests rather than on acquiring additional acreage. Southeastern Connecticut has numerous examples of state holdings that offer only limited recreational opportunities because a range of facilities has not been developed.
2. There is particularly a need for additional swimming areas, both saltwater and fresh.
3. High priority should be given to expanding in size Hopemead State Park on Gardiner Lake. This lake has considerable potential for meeting an expanding demand for water-based recreation.
4. The anticipated increase in funds from the Land and Water Conservation Act will be useful only if non-federal matching dollars are available. State appropriations should be increased to assure that Connecticut will not lose an opportunity to improve its open space and recreational resources.

South Western Region

The South Western Region presently has about 30 square miles, or 15 percent of its area set aside as open space for recreation, conservation, or other purposes. Most of this land is privately owned. Even in relation to the existing population of 334,000, this is regarded as an inadequate amount. Future population growth and immigration will increase the need, especially for open spaces accessible to the general public. Assuming moderate population growth, a 30 percent increase in the number of residents of the Region can be expected by the year 2000.

To meet present and future open space and outdoor recreation demands, the following regional objectives and priority needs have been delineated by the South Western Regional Planning Agency.

Open Space and Outdoor Recreation Objectives and Policies:

1. Use open space throughout the Region as a basic shaper of the pattern of development.
2. Interrupt linear development with open spaces, particularly by preserving north-south river valleys as linear open spaces interrupting east-west linear development.
3. Develop a system of "green belt" open spaces around concentrations of higher density development, and provide for well-designed open spaces within those concentrations.
4. Assure sufficient open space being accessible to residents of the more densely developed areas.
5. Concentrate on preserving those open spaces which are unique,

vulnerable, or crucial to the character of the Region.

- a. Treat Long Island Sound as the Region's principal unique open space resource.
- b. Preserve as public open space all offshore islands.
6. Develop and enlarge existing shorefront recreation areas.

Priority Short Term Proposals and Needs:

1. Preserve the Norwalk Islands and their surrounding waters as a conservation area for public use.
2. Preserve the Mianus River Gorge for its unique natural characteristics.
3. Development of Western Connecticut Linear Park along proposed U.S. 7.
4. Preservation of tidal and inland wetlands.

Valley Region

The recreation goal of the Valley Regional Planning Agency as defined in the 1971 Open Space Regional Plan of the Valley Region is to "provide access to recreational, cultural, and other leisure-time activities that are suited to the needs of Valley residents and provide for the location of the maximum number of appropriate facilities within the Region itself." The short range open space and recreation (10 year) needs of the Valley Region are listed below:

1. Preservation of the most valuable portions of the slopes above Indian Wells State Park.
2. Preservation of all water company holdings.
3. Development of all appropriate recreation facilities in Osborndale and Indian Wells State Parks.

4. Development of hiking trails, especially along the banks of the Housatonic River.
5. Increased public access to the Housatonic for boating and other activities.
6. Development of recreational use on water company lands where such use would be compatible with water supply requirements.
7. Provision of adequate open space in all existing residential areas and reservation of open space required for foreseeable future development.
8. Preservation of valuable open space to the maximum possible extent in new low and moderate-density residential areas.

Windham Region

Based upon public comment and previous regional open space and recreation policies, the following needs have been identified by the Windham Regional Planning Agency:

1. Municipalities in the Region which have previously acquired lands for outdoor recreation, are now in need of Land and Water Conservation Act funding assistance for facilities development.
2. Water-based recreation of a regional scale remains an important unmet need. Swimming facilities are particularly lacking. A large-scale swimming facility is a high priority in the Region.
3. The need for the establishment of a regional park centered on the Shetucket River and Pleasure Hill continues to be a high priority need. Due to significant improvements in the water quality, the Shetucket River has great potential as a major recreational resource for fishing, boating, and

hiking along its natural shoreline. Such a facility would serve both the Windham and Southeastern Connecticut Regions.

4. Greater access to stream banks and ponds, particularly those stocked by the State, should be acquired for public fishing. State boat launching facilities should be better designated and maintained. The launching facilities at Mansfield Hollow State Park are inadequate in both these regards.
5. Creation of a regional system of trails for hiking and riding connecting existing public lands would be a major asset. Such a system would expand the usefulness of the State Forests in the Region. The existing Nipmuck Trail corridor should be protected where it crosses private property.

appendix

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**Allocations to Acquisition and
Development**

SCHEDULE OF ACQUISITIONS

FISCAL YEAR October, 1978 to September, 1979

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Acre	Estimated Cost	Source of Funding		
						Bonding	L & WCF	Other
State	<u>Acquisitions</u>	1978	5	650	\$2,000,000	50%	50%	
	State Parks & Forests and Natural Areas	1978	5	650	\$2,000,000			
Local	<u>Park/Recreation Areas</u>	1978	19	400	\$2,360,000	25%	25%	50%
	Neighborhood Parks		10	45	\$ 260,000			
	Area-wide Parks		6	130	\$ 860,000			
	General Town Parks		3	225	\$1,240,000			

General Approp.*	State Grant	L & WCF
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*Municipal share.

SCHEDULE OF DEVELOPMENT

Fiscal Year October 1978 to September 1979

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						Bonding	L & WCF	Other
State	<u>State Recreation Areas</u>	1978	2		\$14,000,000	50%	21%	29%**
	Coastal Beaches		2		\$14,000,000***			
	Inland Facilities		0					
Local	Sports And Playfields	1978	45		\$ 1,090,000	25%	25%	50%
	General play area		10		\$ 100,000			
	Baseball/softball		15		\$ 480,000			
	Football/soccer		6		\$ 240,000			
	Tennis Court		10	20	\$ 60,000			
	Tracks/jogging areas		4		\$ 210,000			

410

*Municipal share.

**Secretary of the Interior's Contingency Fund if available for the development of Silver Sands State Park

***The \$14 million will be used to initiate the development of Silver Sands State Park (\$13 Million) and to expand Rocky Neck State Park (\$1 Million).

In the eventuality of uncommitted funds, such monies could be allocated for rehabilitation and/or development of inland park facilities.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1978 to September 1979

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Lighting Projects</u>	1978	16		\$440,000	25%	25%	50%
	General site		5		\$ 50,000			
	Ballfields		6		\$240,000			
	Tennis courts		5	10	\$150,000			
	<u>Support Facilities</u>	1978	18		\$280,000	25%	25%	50%
	Bathroom buildings		6		\$120,000			
	Water control structure		2		\$100,000			
	General fencing		10		\$ 60,000			
	<u>Picnic Areas</u>	1978	10	30 sites	\$ 80,000	25%	25%	50%

*Municipal share

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1978 to September 1979

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Trail Facilities</u>	1978	8		\$200,000	25%	25%	50%
	Hiking		3	10 miles	\$ 40,000			
	Nature		2	2 miles	\$ 20,000			
	Other (bike, bridle, etc.)		3	10 miles	\$140,000			
	<u>Swimming Areas</u>	1978	2		\$400,000	25%	25%	50%
	<u>Winter Sports</u>	1978	10		\$150,000	25%	25%	50%
	Ski trails		2		\$ 20,000			
	Sledding areas		5		\$ 10,000			
	Ice Skating areas		3		\$120,000			
	<u>Marinas</u>	1978	1	30 berths	\$200,000	25%	25%	50%

*Municipal share

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1978 to September 1979

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Golf Course Improvements</u>	1978	1		\$310,000	25%	25%	50%
	<u>Nature Centers</u>	1978	2		\$ 80,000	25%	25%	50%
	<u>Playground/Tot Lots</u>		10		\$110,000	25%	25%	50%
	Playgrounds		6		\$ 70,000			
	Tot lots		4		\$ 40,000			
	<u>Parking Areas & Access Roads</u>	1978	18		\$1,100,000	25%	25%	50%
	Parking lots		10	50 car	\$ 300,000			
	roads		8		\$ 800,000			
					\$4,440,000			

*Municipal share

SCHEDULE OF ACQUISITIONS

FISCAL YEAR October 1979 to September 1980

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Acre	Estimated Cost	Source of Funding		
						Bonding	L & WCF	Other
State	<u>Acquisitions</u>	1979	6	700	\$3,000,000	50%	50%	
	State Parks & Forests and Natural Areas		6	700	\$3,000,000			
Local	Park/Recreation Areas	1979	30	800	\$4,360,000			
	Neighborhood Parks		15	100	\$ 660,000			
	Area-wide Parks		10	200	\$1,200,000			
	General Town Parks		5	500	\$2,500,000			

General Approp.*	State Grant	L & WCF
25%	25%	50%

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1979 to September 1980

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						Bonding	L & WCF	Other
State	<u>State Recreation Areas</u>	1979	4		\$6,000,000	46%	23%	31%**
	Coastal Beaches		1		\$5,000,000***			
	Inland Recreational Facilities		3		\$1,000,000			
Local	<u>Sports and Playfields</u>	1979	38		\$ 852,000	25%	25%	50%
	General playfields		5		\$ 40,000			
	Baseball/softball		15		\$ 300,000			
	Football/soccer		6		\$ 144,000			
	Tennis		10	20	\$ 320,000			
	Track/jogging		2		\$ 48,000			

*Municipal share.

**Secretary of the U.S. Department of the Interior's Contingency Fund if available for the development of Silver Sands State Park.

***For development of Silver Sands State Park.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1979 to Sept. 1980

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Lighting Projects</u>	1979	17		\$ 480,000	25%	25%	50%
	General site lighting		5		\$ 50,000			
	Ballfields		7		\$ 280,000			
	Tennis courts		5	10	\$ 150,000			
	<u>Support Facilities</u>	1979	12		\$ 330,000	25%	25%	50%
	Sanitary buildings		4		\$ 120,000			
	Water control structures		3		\$ 180,000			
	General fencing		5		\$ 30,000			
	<u>Picnic Areas</u>	1979	10	30 sites	\$ 68,000	25%	25%	50%

416

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR Oct. 1979 to Sept. 1980

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Trail Facilities</u>	1979	8		\$ 120,000	25%	25%	50%
	Hiking		5	15 miles	\$ 60,000			
	Nature		2	2 miles	\$ 20,000			
	Other (bike, bridle, snowmobile, etc.)		1	5 miles	\$ 40,000			
	<u>Swimming Areas</u>	1979	1		\$ 540,000	25%	25%	50%
	<u>Winter Sports</u>	1979	11		\$ 350,000	25%	25%	50%
	Ski trails		3	10 miles	\$ 40,000			
	Sledding		5		\$ 10,000			
	Ice skating		3		\$ 300,000			
	<u>Marinas</u>	1979	1	30 berths	\$ 300,000	25%	25%	50%

*Municipal share

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October, 1979 to September 1980

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Golf Course Improvements</u>	1979	1		\$ 470,000	25%	25%	50%
	<u>Nature Centers</u>	1979	0			25%	25%	50%
	<u>Playground/Tot Lots</u>	1979	11		\$ 210,000	25%	25%	50%
	Playgrounds		8		\$ 160,000			
	Tot lots		3		\$ 50,000			
	<u>Parking Areas & Access Roads</u>	1979	11		\$ 720,000	25%	25%	50%
	Parking lots		7	50 car	\$ 480,000			
	Access roads		4		\$ 240,000			
					\$4,440,000			

418

*Municipal share.

SCHEDULE OF ACQUISITIONS

FISCAL YEAR Oct. 1980 to Sept. 1981

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Acre	Estimated Cost	Source of Funding		
						Bonding	L & WCF	Other
State	<u>Acquisitions</u>	1980	4	780	\$2,300,000	50%	50%	
	State Parks & Forests and Natural Areas		4	780	\$2,300,000			
Local	<u>Park/Recreation Areas</u>		30	1,000	\$6,000,000			
	Neighborhood Parks		15	100	\$1,000,000			
	Areawide Parks		10	400	\$2,000,000			
	Townwide Parks		5	500	\$3,000,000			

General Approp.* 25% State Grant 25% L & WCF 50%

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1980 to September 1981

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						Bonding	L & WCF	Other
State	<u>State Recreation Areas</u>	1980	5		\$2,060,000	50%	50%	
	Swimming Area Facilities		1		\$ 860,000			
	Inland Recreational Facilities		4		\$1,200,000			
Local	<u>Sports And Playfields</u>	1980	36		\$ 800,000	25%	25%	50%
	General purpose fields		5		\$ 40,000			
	Baseball/softball		15		\$ 300,000			
	Football/soccer		6		\$ 140,000			
	Tennis		10	20	\$ 320,000			

General Approp.* State Grant L & WCF

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1980 to September 1981

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Lighting Projects</u>	1980	13		\$350,000	25%	25%	50%
	General Site Lighting		4		40,000			
	Ballfields		4		160,000			
	Tennis Courts		5		150,000			
	<u>Support Facilities</u>	1980	13		\$430,000	25%	25%	50%
	Sanitary Building		4		160,000			
	Maintenance Building		3		210,000			
	General Fencing		6		60,000			
Local	<u>Picnic Areas</u>	1980	10	30 sites	\$ 90,000	25%	25%	50%

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1980 to September 1981

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General State Approp.*	Grant	L & WCF
	<u>Trail Facilities</u>	1980	5		\$160,000	25%	25%	50%
	Hiking		2	10 miles	40,000			
	Other (bridle, bike, snowmobile, etc.)		3	15 miles	120,000			
	<u>Swimming Areas</u>	1980	1		\$800,000	25%	25%	50%
	<u>Winter Sports</u>	1980	8		\$410,000	25%	25%	50%
	Ski Trail		2	10 miles	40,000			
	Sledding Areas		5		20,000			
	Ice Skating		1		350,000			
	<u>Marinas</u>	1980	0			25%	25%	50%

*Municipal share

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1980 to September 1981

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General	State	Grant L & WCF
						Approp.*		
	<u>Golf Course Improvements</u>	1980	2		\$ 800,000	25%	25%	50%
	<u>Nature Centers</u>	1980	1		\$ 70,000	25%	25%	50%
	<u>Playground/Tot Lots</u>	1980	9		\$ 150,000	25%	25%	50%
	Playgrounds		6		120,000			
	Tot Lots		3		30,000			
	<u>Parking Areas & Access Roads</u>	1980	6		\$ 380,000	25%	25%	50%
	Parking Lots		4	50 cars	160,000			
	Access Roads		2		220,000			
					\$4,440,000			

*Municipal share.

SCHEDULE OF ACQUISITIONS

FISCAL YEAR October 1981 to September 1982

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Acre	Estimated Cost	Source of Funding		
						Bonding	L & WCF	Other
State	<u>Acquisitions</u>	1981	4	780	\$2,300,000	50%	50%	
	State Parks & Forests and Natural Areas		4	780	\$2,300,000			
Local	<u>Park/Recreation Areas</u>	1981	30	1,000	\$6,000,000	25%	25%	50%
	Neighborhood Parks		15	100	\$1,000,000			
	Area-wide Parks		10	400	\$2,000,000			
	Town-wide		5	500	\$3,000,000			

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1981 to September 1982

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						Bonding	L & WCF	Other
State	<u>State Recreation Areas</u>	1981	5		\$2,060,000	50%	50%	
	Swimming Area Facilities		1		\$ 860,000			
	Inland Recreation Facilities		4		\$1,200,000			
Local	<u>Sports And Playfields</u>	1981	36		\$ 800,000			
	General Purpose Fields		5		\$ 40,000			
	Baseball/Softball		15		\$ 300,000			
	Football/Soccer		6		\$ 140,000			
	Tennis		10	20	\$ 320,000			
						General State Approp.* Grant L & WCF		
						25%	25%	50%

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1981 to September 1982

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Lighting Projects</u>	1981	13		350,000	25%	25%	50%
	General Site Lighting		4		40,000			
	Ballfields		4		160,000			
	Tennis Courts		5		150,000			
	<u>Support Facilities</u>	1981	13		430,000	25%	25%	50%
	Sanitary Building		4		160,000			
	Maintenance Building		3		210,000			
	General Fencing		6		60,000			
	<u>Picnic Areas</u>	1981	10	30 sites	90,000	25%	25%	50%

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1981 to September 1982

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp. *	State Grant	L & WCF
	<u>Trail Facilities</u>	1981	5		160,000	25%	25%	50%
	Hiking		2	10 miles	40,000			
	Other (bridle bike, snowmobile, etc.)		3	15 miles	120,000			
	<u>Swimming Areas</u>	1981	1		800,000	25%	25%	50%
	<u>Winter Sports</u>	1981	8		410,000	25%	25%	50%
	Ski Trail		2	10 miles	40,000			
	Sledding Areas		5		20,000			
	Ice Skating		1		350,000			
	<u>Marinas</u>	1981	0			25%	25%	50%

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1981 to September 1982

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Golf Course Improvements</u>	1981	2		800,000	25%	25%	50%
	<u>Nature Centers</u>	1981	1		70,000	25%	25%	50%
	<u>Playground/Tot Lots</u>	1981	9		150,000	25%	25%	50%
	Playgrounds		6		120,000			
	Tot Lots		3		30,000			
	<u>Parking Areas & Access Roads</u>	1981	6		380,000	25%	25%	50%
	Parking Lots		4	50 cars	160,000			
	Access Roads		2		220,000			
					\$4,440,000			

*Municipal share.

SCHEDULE OF ACQUISITIONS

FISCAL YEAR October 1982 to September 1983

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Acre	Estimated Cost	Source of Funding		
						Bonding	L & WCF	Other
State	<u>Acquisitions</u>	1982	4	780	\$2,300,000	50%	50%	
	State Parks & Forests and Natural Areas		4	780	\$2,300,000			
Local	<u>Park/Recreation Areas</u>	1982	30	1,000	\$6,000,000	25%	25%	50%
	Neighborhood Parks		15	100	\$1,000,000			
	Area-wide Parks		10	400	\$2,000,000			
	Town-wide Parks		5	500	\$3,000,000			

429

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1982 to September 1983

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						Bonding	L & WCF	Other
State	<u>State Recreation Areas</u>	1982	5		\$2,060,000	50%	50%	
	Swimming Area Facilities		1		\$ 860,000			
	Inland Recreational Facilities		4		\$1,200,000			
Local	<u>Sports And Playfields</u>	1982	36		\$ 800,000	25%	25%	50%
	General Purpose Fields		5		\$ 40,000			
	Baseball/Softball		15		\$ 300,000			
	Football/Soccer		6		\$ 140,000			
	Tennis		10	20	\$ 320,000			

*Municipal share.

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1982 to September 1983

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Lighting Projects</u>	1982	13		350,000	25%	25%	50%
	General Site Lighting		4		40,000			
	Ballfields		4		160,000			
	Tennis Courts		5		150,000			
	<u>Support Facilities</u>	1982	13		430,000	25%	25%	50%
	Sanitary Building		4		160,000			
	Maintenance Building		3		210,000			
	General Fencing		6		60,000			
	<u>Picnic Areas</u>	1982	10	30 sites	90,000	25%	25%	50%

*Municipal share

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1982 to September 1983

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp. *	State Grant	L & WCF
	<u>Trail Facilities</u>	1982	5		160,000	25%	25%	50%
	Hiking		2	10 miles	40,000			
	Other (bridle, bike, snowmobile, etc.)		3	15 miles	120,000			
	<u>Swimming Areas</u>	1982	1		800,000	25%	25%	50%
	<u>Winter Sports</u>	1982	8		410,000	25%	25%	50%
	Ski Trail		2	10 miles	40,000			
	Sledding Areas		5		20,000			
	Ice Skating		1		350,000			
	<u>Marinas</u>	1982	0			25%	25%	50%

*Municipal share

SCHEDULE OF DEVELOPMENT

FISCAL YEAR October 1982 to September 1983

Level of Government	Type of Recreation Project	Programmed Development Fiscal Year	Number	Units	Estimated Cost	Source of Funding		
						General Approp.*	State Grant	L & WCF
	<u>Golf Course Improvements</u>	1982	2		800,000	25%	25%	50%
	<u>Nature Centers</u>	1982	1		70,000	25%	25%	50%
	<u>Playground/Tot Lots</u>		9		150,000	25%	25%	50%
	Playgrounds		6		120,000			
	Tot Lots		3		30,000			
	<u>Parkings Areas & Access Roads</u>	1982	6		380,000	25%	25%	50%
	Parking Lots		4	50 cars	160,000			
	Access Roads		2		220,000			
					\$4,440,000			

*Municipal share.

COASTAL ZONE
INFORMATION CENTER

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